THE VICTORIA READERS

BY

W. J. POPE

BOOK VI.

FOR

STANDARDS VI. & VII.

THE

VICTORIA READERS

BOOK VI.

A SERIES OF LESSONS

ON

THE PREPARATION OF FOOD

THE DWELLING

RULES FOR HEALTH, AILMENTS

THE SICK ROOM

FOR STANDARDS VI. AND VII.

BY

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*** *These books have been prepared in accordance with the Code Syllabus for Domestic Economy, both as a Class and Specific Subject.*

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PREFACE

THIS book has been carefully prepared in narrative form as a general class reader. Great care has been taken in the choice of language to make it a book for pleasant reading, and not one of facts alone. A chatty style has been adopted, and the lessons form a continuous series exactly in accordance with the Syllabus of Domestic Economy for Standards VI. and VII., as laid down in the Code.

I am indebted to Mrs. Burrage of Harrow for material help in the preparation of this book.

W. J. P.

LEWISHAM BRIDGE SCHOOL,
LONDON, S.E.

Extract from the Instructions to Her Majesty's Inspectors.

"All that is purely technical, whether in the mode of study or in the language and terminology, should be carefully avoided."

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THE VICTORIA READERS

FOOD—ITS PREPARATION

MR. AND MRS. GRANT lived in a small town in Norfolk. Mr. Grant was what is called pretty well to do; he was in a good situation, lived in a nice little house, and, together with his family, was happy and comfortable.

Elsie, their only daughter, was fourteen, and still went to school, as did also her brothers, Walter and George; but her two older brothers, Stanley and John, had left and were at work.

Although Mrs. Grant's husband was in a good situation, she was not the best off of her family. She had a sister Alice living in Essex, who was far better off than herself, and whose husband was very kind to the Grants. He and his wife would often invite them down for a week; and it was from them that the postman brought a letter, just as Elsie came in from school one Friday afternoon in October.

The letter was for Mrs. Grant, who, after reading it, said to her daughter, "Aunt Alice has invited you to spend a few weeks with her. She knows that you are leaving school, and thinks it would be a good opportunity for you to learn a little housekeeping."

"How delightful!" said Elsie. "I always enjoy staying with Aunt Alice. Her house is so interesting, and she takes so much trouble over little things, which ordinary people think of no consequence."

"Yes," said her mother, "your aunt is an excellent manager, and makes the best of all that falls into her hands; and it is astonishing how many people she is able to keep by doing this."

"But you forget how dull we shall be without you," said Walter.

"Oh! a few weeks will soon fly by," replied Elsie, "and I shall come back so clever after the teaching which Aunt Alice is sure to give me, that I shall be quite a model housekeeper."

So it was arranged for Elsie to leave home the following week. It was a busy time, for much making and mending had to be done to her not overstocked wardrobe to make it look its best for the visit, and, as she said "Good-

bye" to those at home, she looked very bright and happy. As the train steamed out of the station her brothers waved their caps, but I am bound to say that, when they reached home, it seemed rather dull without their sister. Their mother, too, found that in little house matters, however willing her sons might be, they were rather clumsy substitutes for her useful daughter, on whose quick perception and ready hands she so frequently relied.

And now let us take a peep at the household of which for a time Elsie was to become a member.

Mrs. Moore, for that is the name of Elsie's aunt, has been more fortunate, as regards the possession of worldly goods, than her sister Mrs. Grant. She is in better circumstances and is able to live in a nice house, the management of which she makes the great feature of her life. Her friends say that hers is a model house, and that the meals there are always enjoyable, because they are so daintily cooked and served. She prides herself on being able to make the best use of everything; and in this way, while spending less money on food than her neighbours, she not only keeps an excellent table at home, but is able to help the poor people around her.

The morning after Elsie's arrival, her aunt took her into the kitchen and told her servant that she had brought her a pupil.

THE KITCHEN.

Jane was delighted, for she fully entered into the ideas of her mistress about management, and was, to tell the truth, rather vain of her accomplishments. She was proud to show Elsie over the kitchen. And no wonder! The wooden floor, table and dresser were spotlessly white. Plates and dishes shining with cleanliness ornamented the top of the dresser, while scrupulously clean saucepans, stewpans and kettles were on the pot-board underneath.

On the mantel-shelf was a row of bright-looking tins, with close-fitting lids, containing coffee, spices, &c.; and a clock, such a necessary thing for every kitchen, had its place among them.

Brooms, brushes and other apparatus for cleaning were kept in the scullery, where each had a place of its own. All long-haired brooms and brushes were hung from nails, as otherwise they would get flattened and spoiled. The soap, cut into squares, hung in a string bag, which Jane had netted in the evenings,

so that it might dry, and not wash away so easily as it otherwise would do.

The dresser-drawers were patterns of neatness, and contained dust-sheets, dusters, kitchen towels and the kitchen table-cloths.

"What a nice little cooking-range you have!" said Elsie. "It is very convenient to have an oven on one side and a self-filling boiler on the other; and how very nice it is to be able to warm your plates and dishes on the rack!"

"Yes," said Jane, "hot meat requires hot plates; but it is a bad plan to put plates and dishes in a hot oven. It cracks the glaze and soon spoils them."

"And now that I have shown you our workshop, as we sometimes call the kitchen, and our tools, the cooking utensils, I should like a little chat with you," said Elsie's aunt to her in the evening, "as to the reason why we cook our food. Even savage nations, with but few exceptions, do not eat raw flesh; and all civilised peoples have found out that cooking is essential to nearly all kinds of food.

"Among the chief reasons may be mentioned:—

"(1.) To render it more digestible and therefore more wholesome. Cooking, when

properly done, softens the fibres of animal food, and breaks up the starch cells of vegetable food, making them more easily acted upon by the digestive fluids in the body.

"(2.) To make it more palatable. The flavour of meat is improved by cooking. Various condiments can also be added and special flavours given to the various joints and dishes.

"(3.) To give it a better appearance, and to remove, by means of heat, any injurious matters which it might contain. We all know how people in delicate health are set against food by having it presented to them in a half-cooked state; and some of us also know how to tempt the appetite of an invalid by serving up the food in as dainty a way as we can.

"A young friend of mine says that half-cooked meat always reminds him of 'feeding-time' at the Zoo, and that he feels degraded to the level of the beasts when it is offered to him for food."

One evening, soon after Elsie's arrival, she was sitting with her aunt knitting some socks for her brothers. Mr. Moore had returned

from business, and was engaged in reading his newspaper. It was a cosy little sitting-room, and it had an air of comfort about it that was quite restful.

"May I go into the kitchen with you in the morning, aunt?" said Elsie. "I should like to help you and Jane with the cooking, if I may."

"I shall be delighted for you to do so," said her aunt. "I have many things to teach you, and there I can find practical illustrations for my lessons."

So, on the following morning, Elsie put on a large white "cooking apron," which reached to the bottom of her dress, and a pair of white sleeves, which went over her dress sleeves, and tied above the elbow. Thus equipped, she felt ready to do real work.

"I am glad to see that your apron buttons down at the back with straps," said her aunt.

"It spoils the dresses if you pin the apron bands to them, as so many girls do. But I always have a large pocket in my aprons; I find it so useful for my keys and handkerchief, and it prevents my having to put a floury hand into my dress pocket.

"We are having our joint roasted to-day, so you will be able to learn something about this mode of cooking."

"There are so many ways of cooking meat," said Elsie, "that I wonder you are not often puzzled to know which way to choose."

"There are roasting, baking, boiling, stewing, frying, grilling and steaming, but it depends on the kind of joint we are cooking as to which mode we employ," said her aunt. "Some joints would be completely spoiled by roasting, while it is quite the best way to cook others. Then, again, we could stew a cheap piece of leg of beef till it is deliciously tender, whereas if we roasted it, we should make it so hard and dry that it would be perfectly uneatable.

"**Roasting** consists in cooking food by exposing it to the direct heat rays of an open fire. You see that Jane has already made a roasting fire. There are no ashes, nothing

but bright, clear, burning coals, which fill the grate. It is useless to try to roast with a poor fire."

"Then is not roasting rather an extravagant way of cooking meat?" said Elsie.

"It is considered to be so by some people,"

replied her aunt. "It is certainly not the most economical way, but a very favourite one, as it preserves the flavour more than any other mode of cooking. Indeed some people go so far as to say that it is the only perfect way of cooking meat.

"But you must bear in mind that only prime joints should be roasted, such as sirloin or ribs of beef, leg, shoulder, or loin of mutton or pork. Cheaper and more sinewy joints would be rendered hard and indigestible by this process.

"The best way to roast a joint is to hang it in a meat-jack, and set it in front of the fire, because a meat-jack has a mechanical arrangement, by means of which the joint is kept constantly turned. As this article, however, is not included among our kitchen requisites, we do the best we can to find a substitute. You see this brass bar with notches in it, which is fastened by a hinge under the mantel-shelf?"

"Yes," said Elsie. "I have several times wondered for what purpose it was used."

"You will see now," said her aunt. "Will you take that damp cloth and wipe the joint all over? Meat should never be washed, but it should be wiped. It has been hanging in the cellar for the last few days, as freshly-killed meat is apt to be tough.

"This being done, we suspend the joint in front of the fire, with the thick end downwards, by means of a string of twisted worsted, which we fasten to one of the

notches in the brass bar. If I had no bar, I should use a large nail for the purpose, and I have even seen a gimlet used in the same way, but this looks untidy, to say the least of it. Jane has already put a large dripping-pan under the meat, which contains a little dripping and a long-handled spoon with which to baste the joint. And now we fix up an old tea tray behind the joint, so that too much cold air shall not reach it."

"But, Aunt Alice," said Elsie, "I do not quite see the use of the notches in the brass bar, from which the meat is suspended."

"They are useful," said her aunt, "because by means of them we can move the joint nearer to or farther from the fire as it roasts; and they prevent the worsted slipping.

"At first a roasting joint should be placed quite near to the fire, so that it may get the fiercest heat it will bear without burning. This is in order that the albumen in the outside part of the joint about to be roasted, may be hardened, and the escape of the nutritive juices prevented. The albumen forms a case or coat all over the meat, and keeps safely inside all its good qualities. When this case is complete, which will be in about ten minutes, the joint must be moved farther

from the fire, and allowed to cook gradually. I shall want you to give a little attention now and then to the worsted string, and see that it untwists and keeps the meat constantly turning round. Also, please baste the meat now and then, or we shall have a dry joint.

"Sometimes we roast in our large Dutch oven; but it is only suitable for small joints, such as fowls, and game, and these require to be kept continually turned and basted, or they would quickly scorch.

"So you see, Elsie, roasting is not a method of cooking which we should recommend to idle or careless cooks, but only to those who wish to send a prime joint to table, cooked in the very best way. I should like you to remember that the time allowed for roasting is a quarter of an hour to each pound of meat, and a quarter of an hour over. In the case of exceptionally large or small joints this rule requires a little modification. Veal and pork require more cooking than beef and mutton."

Elsie's next visit to the kitchen was on a very busy morning. A joint of meat had to be *baked*, so the oven had to be heated. A large iron boiler stood on the top of the kitchener, showing that *boiling* also was part

of the morning's work. "We are baking and boiling to-day, Elsie," said her aunt. "Our boiler is a large one, because I like boiling joints to have plenty of room and plenty of water. It is economy to do both at the

same time, because you see the same fire that heats the oven keeps the pot boiling."

Baking.—"Meat to be baked must be put into a very hot oven at first, as our first object is to harden the albumen on the outside. Whether we have succeeded in this or not, we decide by putting a small piece of bread on the oven plate, and if this turns brown very quickly we know our oven is hot enough. You see our dripping-pans are made to fit the oven. They should be so made that we may easily lift them in and out. We use two pans, one inside the other. The outer one is kept filled with water in order to prevent the fat from burning.

GAS COOKING STOVE

"As our joint to-day is rather lean, will you please spread a little dripping on the top of it, then place it on a small stand in the baking-tin and put it in the oven? In about

ten or fifteen minutes the oven must be cooled down, so that the meat may cook gradually. Open the oven ventilator to let out the steam, and remember that, although it does not require so much attention as a roasting joint, you must not forget to look at it now and then, and to baste it. If a joint is carefully baked in this way its flavour is almost equal to that of a roasted one, while the trouble and expense are much less. We generally allow the same time for baking as for roasting.

"We cannot bake pastry very well in the same oven with the meat, as all pastry requires a brisk oven; but we may cook potatoes and apples. A rice pudding would also bake very well on a lower shelf.

"And now, Elsie, if you watch Jane dish up this joint, you will see that she puts it on a hot dish and keeps it hot. She then pours all the fat out of the baking-tin; and, after she has sprinkled in a little flour from the flour-dredger, she pours in some hot water or stock. This done, she boils it on the top of the kitchener, stirring with an iron spoon, until it becomes slightly-thickened gravy. A little of this she then pours over the meat, and sends the rest to table in a hot gravy tureen.

Boiling.—"But we must not forget the leg of mutton which has to be boiled. Of course you noticed that it was plunged into boiling water, and you know why. Boiling water has the same effect as fire, and the heat sets the outside albumen. The water was allowed to boil fast for a little time, and now the pot has been drawn to a cooler place, and the water only simmers until the meat is done. A little scum rises occasionally, which we skim off.

"Now and then we also add a little boiling water to keep the joint covered. And you will notice how very careful Jane will be not to put a fork into the joint, for if she did, some of the nutritive juices would immediately make their escape through the holes which the fork had made. The water in which the meat has been boiled we shall carefully save, as it makes excellent stock for soups and gravies.

"Boiling is a useful and economical means of cooking food. It requires less attention and less fire than roasting or baking; and is considered by some people to render meat more digestible than either of those methods.

"Do you remember the boiled fowl which

we took to my poor old friend, Mrs. Green, the other day?"

"Yes," said Elsie; "I helped Jane to cook it. It simmered gently for about an hour, and then we poured some plain white sauce over it, and arranged little bunches of boiled cauliflower

round it. The old lady told me yesterday that it is the only food which she has had for some time which has not given her indigestion."

"That is a feather in your cap, Elsie," said her aunt. "Many kinds of fish, especially soles, are made much more digestible by boiling than by frying. And we should be greatly

puzzled to know how to cook most of our vegetables if we were not able to boil them. The time allowed for boiling fresh meat is the same as that for roasting. A quarter of an hour to the pound, and a quarter of an hour over. Salted meats require twenty minutes to each pound, and fish only ten. But do not forget, in every case, to allow the over-time; and be sure you simmer tender fish very gently, as it is apt to break."

Steaming.—"Which do you consider the best way of cooking puddings made of suet crust?" asked Elsie of her aunt. "My mother always ties a floured pudding-cloth lightly over them, and puts them into a saucepan of boiling water; but at a cookery school, to which I went, we were taught to cover the top securely with a piece of greased paper, and allow the water in the saucepan only to reach half-way up the basin."

"Your mother's is a good old-fashioned plan," said her aunt, "but the cookery school way is also a good one. It is a steaming process. You must be very careful to keep the

lid of your saucepan closed, and to renew the water as it boils away.

"To steam food properly a steamer is required, which is a tin saucepan with holes in the bottom of it, and which has a tight-fitting lid. This fits on to another saucepan, which is partly filled with water and kept boiling. The steam rises through the holes, and cooks the food in the steamer above."

Stewing.—"Stewing again," said Elsie, as she opened the kitchen door one morning about eleven. "You seem to be always stewing something, Jane, and this morning it smells so nice that it makes me feel quite hungry."

"We never waste anything here," said Jane, "and that is why we are constantly stewing. Your aunt does not like to see an untidy-looking joint on the table, so we trim our meat before it is cooked, and all the pieces we get in this way go into our stew-pot.

"The stew-pot is made of strong earthenware, and has a tightly-fitting lid. It has also a strong wire handle, so that it can be lifted into and out of a saucepan, which is partly filled with boiling water. Or, if you prefer it, it will keep simmering on the top of the kitchener.

"It smells extra savoury this morning,

because I have put in a few vegetables and a little allspice. We often make an excellent dinner by gently stewing meat, which would be tough and indigestible if it were cooked in any other way. And as we only use just enough water to cover the meat, we get rich gravy, and none of the pieces are wasted. We also stew rice, sago and all kinds of fruit.

"Sometimes I put the knuckle from a shoulder of mutton into an empty marmalade jar, with about half a pint of water, an onion, a little pepper, salt, a couple of allspice and a little rice. I tie it down closely, and keep it stewing in the oven for several hours; and you would be surprised to see what a nice, nutritious stew it makes, with scarcely any trouble. Stewing is a good way of cooking a dinner on days when there is much housework, and when you have not much time to spend in the kitchen."

Frying.—Just at that moment Mrs. Moore entered the kitchen, and Jane immediately brought in from the scullery a large bright frying-pan.

"Are you going to fry as well as stew to-day?" said Elsie. "I am so glad, for I want to see how you fry here. Mother always says

it is a most extravagant and unwholesome way of cooking food.

"Your mother is quite right," said her aunt, "and I should like to go into many cottage homes and exchange their frying-pans for a

good stew-pot. Nevertheless, I should be sorry to have to do without frying-pans altogether. They are sadly-abused articles, but in their places they are very useful at times."

Frying is cooking food in hot fat. It is a

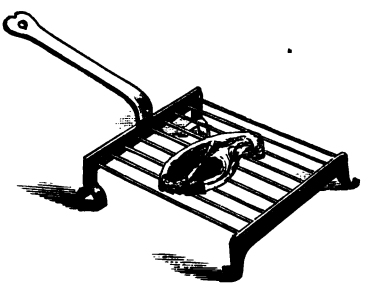
method that is only suitable for the best pieces of meat, such as steaks and cutlets. A beef-steak, when properly fried, makes an excellent dish. Steaks, chops and cutlets should be placed in a pan containing a little boiling fat, and turned over at the end of a minute. By this means the juices of the meats are kept in. After the first two minutes the steak or chop or cutlet should be cooked slowly and turned a few times. In turning, no fork should be stuck into the lean, and it is as well to use only a knife and spoon. On no account should the meat be cut or pricked whilst in the pan.

Fried fish is very palatable, and is done in the same way, but more fat is used; of course we should treat it very gently, or it may break to pieces in the cooking.

Pancakes and omelettes are cooked in the frying-pan. Frying is also one of the approved ways of cooking slices of bacon, with or without eggs.

Grilling or broiling is a very quick way of preparing food; but is only suitable for small pieces, such as steaks, chops, fish, or slices of cold meat. A very clear smokeless fire is absolutely necessary; so it is a mode of cooking that cannot be made use of at a moment's notice. The gridiron should be

perfectly clean, and it should be rubbed with a little butter or dripping to prevent the meat from sticking to it. The meat to be grilled should then be laid on it, and kept for a few seconds quite close to the fire, in order that the albumen may be hardened and the juices kept in. It should then be turned, that the albumen on the other side may be also hardened. The gridiron after this



should be raised some distance from the fire, and the chop frequently turned with a knife, or a small pair of tongs. No fork should be used. In about ten minutes the meat will be done, and it should then be placed on a hot dish, and treated with a small piece of butter, and a little pepper and salt. The quicker it can be sent to table the nicer and more tasty it will be. This mode of cook-

ing is very well worth the attention of all housekeepers; for, although it requires some preparation and attention, it is generally acknowledged that by grilling, small portions of meat may be made most nourishing and digestible.

VEGETABLES

"Run into the garden, and cut me a couple of fair-sized cabbages, Elsie," said her aunt one morning after breakfast. "I am very thankful that we are not obliged to put up with those poor faded things which we saw in the greengrocer's shop. I could not help thinking what a number it would take for a family dinner; for by the time all the dead leaves and the thick stalks had been cut away, there would be very little left to cook. It is a great advantage to be able to get fresh vegetables from one's own garden. Before you cut the cabbages feel them with your fingers, and cut only those which have good firm hearts."

Having cut the **cabbages,** they took off the outside leaves, and then cut out the thick parts of the stalk. They then cut each cabbage into quarters, sliced up the stems of the leaves, and for about half an

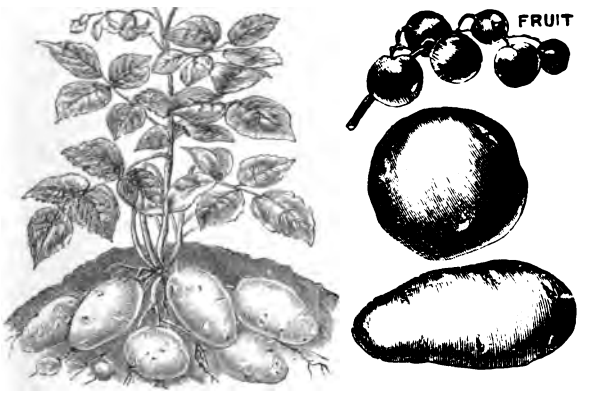
hour they let the whole lie in cold salt and water. After this they well washed the cabbage in another water, to see that no slugs or caterpillars remained in it.

When it was perfectly clean Elsie set the cabbage to drain in a colander, and then put it into a saucepan of fast-boiling water, to which a table-spoonful of salt had been added. The cold cabbage, of course, chilled the water;

but they were careful to quickly make it boil again, and to take off the cover of the saucepan, as the cabbage would not otherwise have kept its colour. Old autumn cabbages require more boiling than young spring ones. The fork and a little common-sense will help to decide when vegetables are cooked. When you are sure that the cabbage is done, strain off all the water through a colander before

sending it to table; and after it is in the vegetable dish cut through several times with a knife, as this makes it much more convenient to serve.

Brussels Sprouts are prepared and cooked in the same way, but cauliflower and broccoli should be boiled with the heads downwards.



Potatoes are very easily cooked, and yet it is astonishing how very often they are spoiled in the cooking. New ones should be well scrubbed, and then scraped lightly with a knife. After this they should be well washed in at least two waters; and then, if to be boiled, plunged into boiling water, to which a little salt and a sprig or two of green mint have been added.

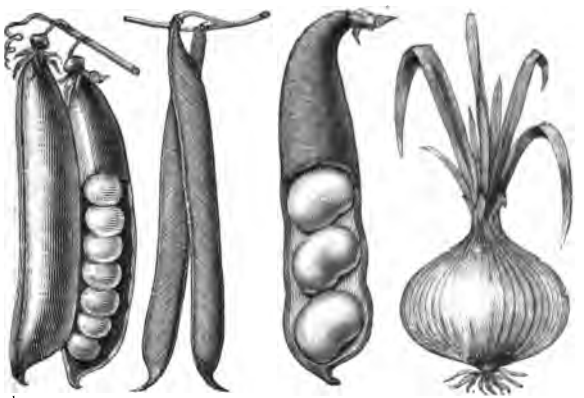
Old potatoes should be very thinly peeled, and after being washed should be at once placed in boiling water, and not in cold water, as is so often done. Neither should they be allowed to lie in cold water before being cooked. The lid of the saucepan should be kept closed, and the water should be strained from them the instant they are done. They may then remain in the saucepan on the kitchener, or by the side of the fire, for a few minutes before being sent to table.

It is difficult to lay down a rule as to the time potatoes should be boiled, as there are so many varieties, each of which requires different treatment from the rest. But from twenty to forty minutes would include all kinds. Some potatoes are better steamed than boiled. In this case they should be well washed and put into a steamer over a saucepan of boiling water.

Potatoes may be cut into slices and fried in boiling fat. Cold boiled potatoes chopped up and fried make a nice addition to the breakfast-table. They are very useful also, used in combination with pieces of meat, to make savoury dishes; and are perhaps best when baked in an oven with meat. Some people like potatoes cooked in their skins. It is, no doubt, the most sensible way of preparing

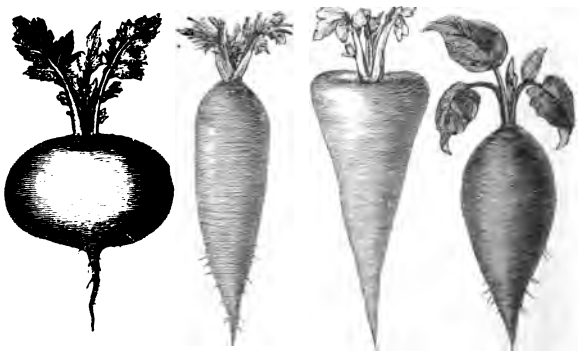
them, as the most nutritious parts are thus preserved. Potatoes require very careful washing when they are thus cooked, and when they are to be baked they should be well dried with a cloth before being put into the oven.

To prepare **French Beans** for the table, the extreme ends and a thin strip on each side



should be cut off. Then slice each bean into three or four narrow lengths, and boil in salt and water, with the lid off the saucepan, until they are tender. Very young beans, however. may be boiled whole. **Peas** and **Broad Beans** are removed from their shells, and are washed before being boiled. **Turnips** should be pared thickly, as the outside edge is more or less

woody. **Carrots** and **Parsnips** only require scrubbing and scraping. **Onions** should have their outside skins removed. **Beet** is washed and boiled in its skin, which should be rubbed off after it is cooked. Cutting it with a knife spoils its colour. **Spinach** requires careful



washing, as it is apt to be gritty. No water is needed to cook it. It should be salted, and will boil in its own juice.

All vegetables should have the water strained away, and, if necessary, squeezed from them before being sent to table.

MARKETING

One of the most important lessons which every good housekeeper has to learn is the selection and purchase of food. We all know that careful cleansing and cooking can do a great deal, but nothing can make a bad article into a good one. The best cook in the world cannot make a bad, tough joint into a tender, digestible one; nor can any amount of skill produce a dish of wholesome vegetables from half-decayed cabbages or frost-bitten potatoes. Therefore, young housekeepers should be careful how they buy. The advice of shopkeepers is not always to be relied on. It is much better to be able to judge for yourself whether what you are buying is really good, and worth the money you are paying for it.

At the **butcher's** choose meat that is firm and elastic to the touch. That which is soft and flabby is not prime. The lean part of meat should be of a clear, bright, red colour, and the fat should be white. If you want a joint of beef for roasting, select sirloin or ribs, but remember that these are the most expensive parts. The aitchbone, the round, and the brisket are suitable for baking or boiling. The cheaper parts, which are excellent for

stewing, are the sticking piece, the thin ribs, and the leg. Bullock's heart makes a good dish when properly cooked. The cheeks and tails are used for soup.

The leg and loin of mutton are the most costly parts of the sheep, and are roasting joints. On account of this expense the leg and

the loins are not often found in the houses of the poor. The shoulder and the best part of the neck make good baking joints, and are a little cheaper; while the neck and the breast are very cheap, and when plainly boiled or stewed, make economical and wholesome dishes. Mutton-chops are cut from the loin.

They are not to be recommended for family meals. Sheep's heart is very good when it is stuffed, and may be either roasted or baked. Pork requires more careful buying than either beef or mutton, because, pigs being gross feeding animals, are very liable to disease, which at times makes their flesh most injurious for human food. Pork should be fine-grained, the rind should be thin, and the fat should be firm. If it is damp and has a faint smell, it is not good.

Meat is more tender when it has hung a few days in a cool place; but at the same time that which is at all decomposed must be very carefully avoided. Refuse that which has a sour or disagreeable smell. All people, of course, have a preference for home-fed meat, and rightly so; but that which is foreign is by no means to be despised. It may be bought much cheaper than English; and a prime joint of New Zealand meat will cost no more than a coarser and more bony one of English; besides which it is often much more profitable. As a rule, do not buy foreign meat until you are ready to cook it. If you cannot avoid doing this, hang it in a cool place, with the thickest part uppermost, to prevent the juices from escaping.

At the **fishmonger's** it is advisable to buy the kinds of fish that are in season. There are many objections to unseasonable fish, and as a rule that which is seasonable is plentiful, and therefore cheap. Do not buy that which is soft and flabby. Good fresh fish is firm and stiff in the body, and has bright eyes

and red gills. This freshness and firmness are the chief points to consider in buying; and above all, it should have no disagreeable smell. Fish may be divided into two classes—white fish and oily fish. White fish is delicate and easily digested; some kinds are suitable for invalids, and form a dainty dish. The chief kinds are soles, plaice, brill, fresh

haddock, cod and ling. Soles are seldom cheap; plaice is much cheaper and, when nicely cooked, closely resembles sole. Turbot is a much-esteemed fish on account of its flavour, but it is rather expensive. Boiled cod forms an excellent family dinner; and, when plentiful, may be bought for threepence or fourpence a pound.

Oily fish is more satisfying, but less digestible than white fish. The chief kinds are salmon, mackerel, herrings, sprats and eel. Salmon stands first; but it is generally rather expensive, although at times it is plentiful and cheap. No economical housekeeper would give more than a shilling a pound for it. It may at times be bought at ninepence, and, at that price, forms a nice change and a cheap substitute for meat. Mackerel is often very abundant in the summer months, and when it can be obtained fresh, is a very useful fish, as it can be cooked in a variety of ways. Herrings are a most useful article of diet, and the price of them is so moderate as to place them within the reach of all. Fresh herrings have a delicious flavour when in season; while cured ones, when nicely cooked, make a very tasty addition to the breakfast-table. Care is however needed in the selec-

tion of herrings, as some are so mildly cured that they are only fit for immediate use; whilst others are so salt as to be very disagreeable.

At the **poulterer's,** choose young birds in preference to old ones; they are much more tender. Young birds have comparatively soft bills and feet; the old ones are hard and stiff. A good fresh fowl is plump and firm, and has no marks of discoloration on its body, nor are its eyes sunken. Poulterers have a habit of plentifully sprinkling fowls with flour to give them a white appearance. This is very often a mask to hide imperfections, so that floured poultry should be looked on with suspicion. Fowls which have white legs look better when they are boiled than those which have black ones.

At the **greengrocer's,** it is well to remember that here, of all places, that which is best is cheapest. Do not be persuaded to buy faded or half-decayed vegetables. They are most unprofitable and unwholesome. There are so many varieties of potatoes that it is difficult to advise what is best. A very large potato is objectionable because it is difficult to cook, while a very small one is most tiresome to prepare. A medium-sized

potato is to be recommended. In winter be careful you do not get them frost-bitten; and in spring buy only in small quantities, for at that time they sprout, and the sprouts are formed of the most nutritive parts of the potato. Cabbages should have firm hearts and crisp green leaves; cauliflowers and broccoli,

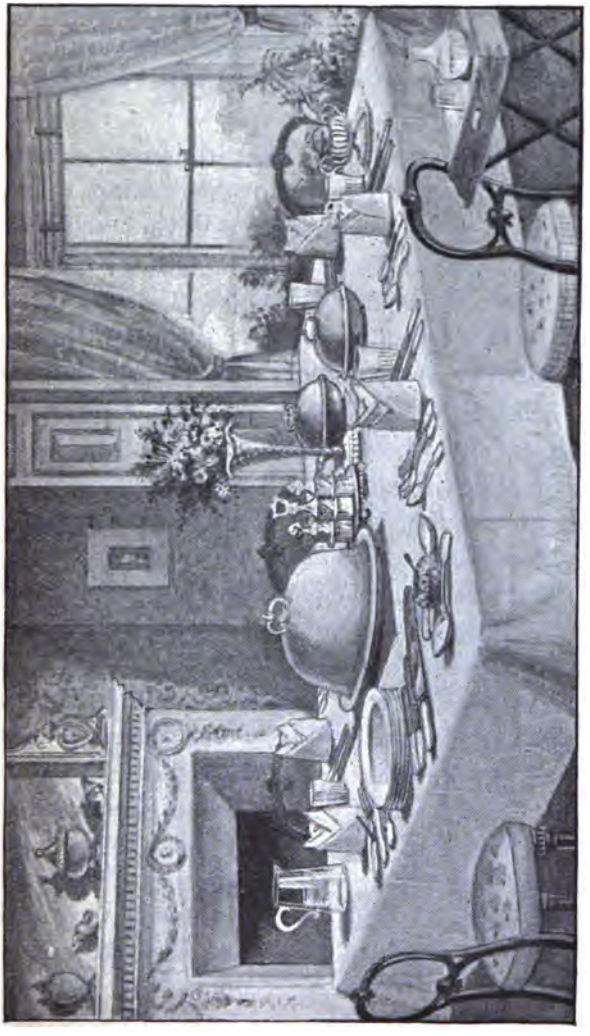
white close heads. The cabbages should not have had their hearts eaten either by slugs or caterpillars. Turnips, carrots and parsnips when fresh are firm and hard, and have green leaves at the top. French beans should be green and crisp. Do not buy those which are limp and faded. Peas should have a bright green colour, and the pods

should be well filled. So also should broad beans. On no account buy fruit that is over-ripe. Unripe fruit can be rendered wholesome by cooking, but nothing can make decomposing fruit fit for food. Apples are a very useful article of diet. Home-grown ones are best for cooking, but now that the Colonial and American fruit trade is getting so important, we may expect the best fruits at all times of the year. Be careful in buying fruit for eating. It is better to have a small quantity of good quality, than an abundance of that which is inferior.

LAYING THE DINNER-TABLE

Most school-girls must have had some experience in setting the table for meals. In many homes where the mother has been busy all the morning cleaning and cooking, she is glad to feel, when her daughter comes home from school, that she may be safely trusted to prepare the table for dinner.

The importance of doing this nicely cannot be too strongly impressed upon every girl. It affects all the household, and is therefore worth doing as well as it can be done. The very plainest dinner is improved by being served



in a clean and orderly manner; whilst the costliest and best-cooked one may be made unsatisfactory by dirty and disorderly surroundings.

The first care, before beginning to set the table, must be to see that everything that is required is in readiness. All that which is wanted should be placed on a tray, and the tray should be placed conveniently near to the table. This plan saves many steps, and lessens the danger of breakages. Knives, forks, and spoons should be clean and bright, and the glasses should be clear. A little polishing with a dry linen cloth or duster greatly improves the appearance of glass, as it removes dulness and finger-marks.

The salt-cellars should be filled with finely-powdered salt made smooth and even, and fresh mustard, vinegar, and pepper must be put in the cruets if need be. If possible, the table-cloth should be of white linen; but, of whatever kind it is, it ought to be clean and smooth. All table-linen should be starched. A stiff, smooth table-cloth lasts clean much longer than a limp one, for crumbs can be easily swept off it. But it must be carefully folded in the same creases each time it is removed.

Having got all the necessary things at hand, lay the cloth along the middle of the table, and carefully unfold it on either side. There should be an equal length hanging down at the top and bottom of the table, and at the sides. If the table be round, see that the cloth hangs evenly on all sides.

To set the table in a very simple way, place a knife and fork for each person, the knife to the right hand and the fork to the left, leaving a space between for the plate. A dessert-spoon and small fork may be placed alongside of each other, with the handles pointing outwards, and at right angles to the ends of the knife and fork, but nearer to the centre of the table. A tumbler should be placed for each person on the right, and bread is always placed on the left. Serviettes should be always laid on the table and used; and it is much to be regretted that they are not considered as necessary as the table-cloth. They can be made for next to nothing, and ought to be in general use.

The salt-cellars are always placed at the corners of the table, and the cruet should find its place in the middle. Table-spoons should be placed on either side of the salt-cellars, lying with their bowls in opposite directions, and a water-jug placed at the other end of the table

farthest from the carver. Table-mats should also be laid in the places where the meat and vegetable dishes are to stand.

Meals should be breaks in the work and worry of life; and anything which tends to brighten our homes tends also to make us happy and free. A few fresh flowers thus become a pleasant addition to the table; and if it be large and the company small, they may be placed in a vase in the centre.

When the table is laid a last look round should be taken to see that nothing has been overlooked, for nothing tends more to make unpleasantness than to find things out of their places, so that they have to be fetched whilst the meals are getting cold.

As a rule in this country, except amongst the well-to-do, we are not so bright and lively at meal-times as we ought to be. With foreign nations, especially among those in warm and sunny climes, the battle of life with its worries and troubles then stands aside. There it is understood that brightness and liveliness are as necessary to health and the enjoyment of life, as amusements and holidays. When at meals, our nervous systems should not be occupied both with business and the digestion of food. "One thing at once" is a good

motto; and to unduly work the nervous system with digestive work and mental work, at the same time, is far from wise and sensible.

SETTING THE TEA

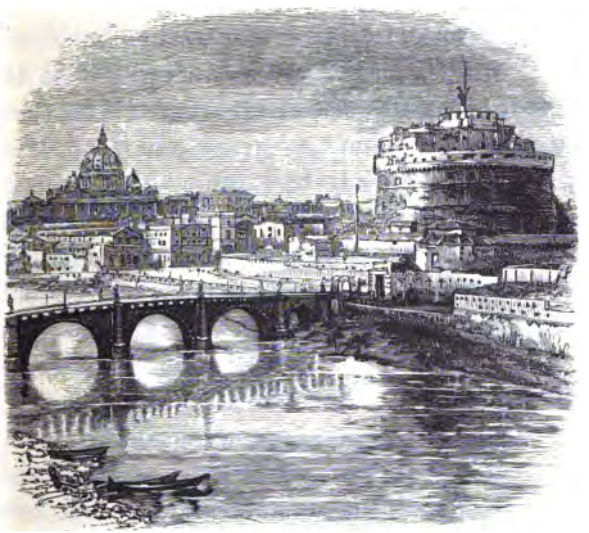
When the cloth is laid, which may be large or small, white or coloured, according to taste, a small plate should be set for each person, with a small knife to the right. A tray should be placed at one end of the table, on which is placed the tea-pot, the sugar-basin, and the milk or cream jug. The cups and saucers, with a tea-spoon lying in each saucer, are set either on the tray or in front of it; and bread and butter on a large plate is placed in the centre of the table.

If cake or jam, or both, can be afforded they also should be placed in the centre of the table. A large knife should be provided for the cake and spoons for the jam, whilst a few flowers stood here and there tend to make things more bright and pleasant than they otherwise would be.

Where people are accustomed to lunch at mid-day and a late dinner in the evening, there is no formal setting of the tea-table, as is shown on the next page.

THE DWELLING

In Book IV., the history of man's early dwellings was sketched from caves and huts and tents, to the more comfortable houses in which he lives to day. When the Romans



came here, many of our forefathers, the ancient Britons, lived in huts much as the Kaffirs and various other people in Africa live to-day.

The Romans, on the other hand, lived in cities and houses, something like those which we find in England and Europe now. They

were more civilised; and from the fine buildings which still remain in Italy, as well as from the many ruined remains which have been found in this country, it is certain that their homes were as well built and as comfortable, as most of those which we have in this country at the present time.

Thousands of years before, when no doubt the people of Italy were as uncivilised as the ancient Britons, the people of Egypt and Babylon and China and many other countries, lived in splendidly-built and well-furnished houses. Thus, although in this part of the world our houses and towns and cities are far better built, and are far more comfortable than they used to be, we are not to suppose that comfortable and well-built houses are entirely of modern growth.

Whenever a nation becomes civilised, people live together in towns and cities. Man then, instead of building and watching his own hut or house, gets other people to do this for him; and thus have arisen builders and policemen, and the many separate sets of trades and professions, which we see all around us to-day. And so it comes to pass that, year by year, things improve, since some workmen are sure to excel, and to do

their work better than their fellow-workmen. Thus our houses become better built, better drained, better supplied with water and more perfect in every way, both inside and out.

In spite of this, all houses are not what they should be. Many are built in wrong places, many are built in the wrong way; and many are so cheaply put together, that the health and comfort of those who live in them are sadly interfered with. In consequence of this, it is high time that people, whilst they are young, should learn how to know a good house from a bad one. Home should be a place of comfort after the worries of daily work; but to be so, it should be sensibly planned and built, and as sensibly fitted up and furnished.

A person in search of a house should never take the first that is empty, unless it is plain that it is in every way suitable. A house, however comfortable, may be altogether in the wrong place. It may be built on damp soil, it may be near a noisy or a chemical factory, it may be open to the north or to the east wind, or it may be badly drained or badly supplied with water. These and many other matters should be considered before renting or buying a house.

SITUATION

Elevation.—A house to be healthy should not be at the bottom of a valley or hollow. The air in hollow and sheltered places is more calm than it is on higher ground; and, as it is not so often renewed, it is more impure. Consequently, if health alone is to be considered, a house on high ground should be selected in preference to one on low.

Aspect.—By this is meant the direction in which the land slopes and the direction towards which the front of the house is built. Thus a house facing the south is said to have a south aspect. Houses which face the north and east are not so sheltered from cold, dry winds as those which face the south and west. Those which face the north and east, on account of the cold of winter, are not suited for persons who are liable to colds and diseases of the lungs. They are, however, cooler in summer than houses which face the south.

Shelter.—The old saying "that when the wind is in the east, it is fit for neither man nor beast," is as true now as it ever was. Although some people have such strong constitutions that heat and cold and damp have no effect upon them, the majority of people

are better without the north and east winds in winter. For that reason it is better to live on the south or west side of a hill than on the north or east. Forests and woods act in the same way as hills in sheltering our homes from cold and icy winds.

Soil: Site.—The ground on which a house is built is called its site. In choosing the site for a new house a dry gravelly or sandy soil should be preferred to a damp clay one. Houses are built not on, but in the ground, and if the earth be damp, the house and the air in it are likely to be damp also. There are not many diseases to which people are liable but what are made worse by cold and damp; whilst some, such as rheumatics, are actually caused by them. Besides this, damp ground damps the air over it, and thus the air which enters houses on damp soils is not so dry as it should be.

For this reason, ground which, like clay, holds the rain which falls on it, is not so suitable for houses as sandy, gravelly lands, which allow it to run away through them. When the sun shines on land it should warm it, and thus warm the air over it; but if the land be cold it does not warm it, it simply dries up the damp into the air instead. Thus over

sandy land we have generally dry, warm air, and over wet, clay land we have damp, cold air. As damp, cold air is not desirable for health, houses are better built on dry than on damp soil.

When, however, there is no dry land at hand, and houses have therefore to be built on clay, the land should be drained, and the water carried away into brooks and rivers. When water is put into a flower-pot of earth, part of the water soaks through the sides of the pot and dries off into the air, so that the earth becomes dry. Thus water can pass through the burnt clay of a flower-pot.

If clay be made into drain-pipes and burnt in a kiln, the pipes, if they are not glazed, allow water to soak through them. So farmers, to dry their land, dig trenches and bury these unglazed pipes a foot or more in the soil. The water, which would otherwise remain in the soil and keep it cold, soaks through the pipes and runs away, so that the fields become drier and warmer than they otherwise would be.

In the same way, before a house is built on clay land, trenches should be dug about a foot deep, and pipes placed in them to carry water away. By that means the soil

under and around a house is kept fairly dry; and, as the soil is drier, the air and the house are drier, and the people more healthy through the draining of the land.

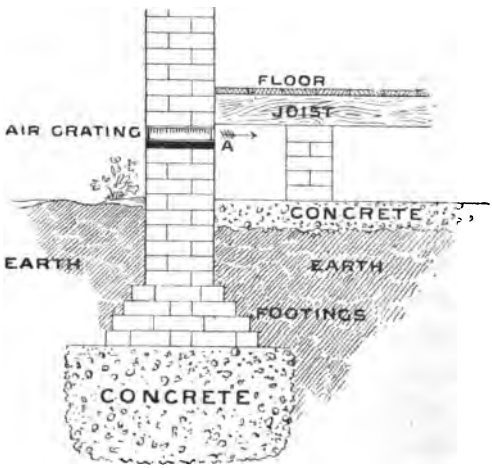
Annoyances.—Bad as damp land and cold winds may be for health, they are as nothing to the mischief caused through the irritation which comes from continual annoyance. Our nerves regulate all parts of the body, and a person who suffers from irritation is certain to suffer in health. Consequently, a quiet neighbourhood is more healthy than a noisy one.

A street where the sweep begins to howl at six, the newspaper-boys at seven, and the milkman at eight, should be avoided by all who value their health. Streets also, where from morn to night costermongers howl in pairs, should be avoided; as should also those where children play instead of going home from school. Noisy factories, places of amusement and street entertainments of all kinds, should be well considered by those in search of a quiet home.

BUILDING A HOUSE

After considering the matters already referred to, and having selected a suitable site, the

Foundations should be seen to in building a house for one's self. As houses are not built on but partly in the ground, trenches have to be dug out where the walls are to stand. If the earth below be hard and firm, these need not be deep; but if the earth be soft and loose, the trenches must be sunk for several feet.



These trenches must then be partly filled with concrete, which is made by mixing gravel with water and cement. In the trenches this becomes as hard as rock, so that the walls have something firm to rest upon. Upon this concrete foundation the footings, as they are called, are laid, as shown in the sketch above.

When the brickwork has been built a few inches above the ground, the bricks are covered with a

Damp-proof Course.—If a lump of sugar be dipped in water, the water ascends towards the hand holding the sugar. So also, if a piece of bread be similarly treated, the water ascends in it. If a brick be stood in a plate of water, the water ascends in the brick; and the finer the brick the higher the water ascends. From this, one can easily see that, if a wall be built in earth, the damp of the earth will ascend in the wall.

Damp, however, is dangerous to health, and therefore it has to be kept down in the ground. If a brick be stood in a plate of water or in wet sand, and another brick be placed on it, the water will rise through both the lower and the upper bricks. If, however, a piece of slate be placed between the two bricks, the upper one will remain dry whilst the lower will be soaked with water.

Thus, as slate prevents water from passing through it, builders have long used it as a damp-proof course. A few inches above the ground, generally on the top of the third row or course of bricks, a layer of slate is cemented; and upon this the rest of the bricks are laid, as is shown at *A* in the sketch on page 52. By this means the walls of the living part of the house are kept dry, and the air within the rooms is kept dry also.

Lately, however, instead of slate, a layer of asphalt, such is used for the pavements of towns, is often spread upon the bricks. This also keeps down the damp; and as it is in one layer, and is not broken up like the slate, it is likely to be largely used.

Although, when a house is built, one cannot see the foundation, one can see the damp-proof course; and no one should take a house unless this course can be plainly seen.

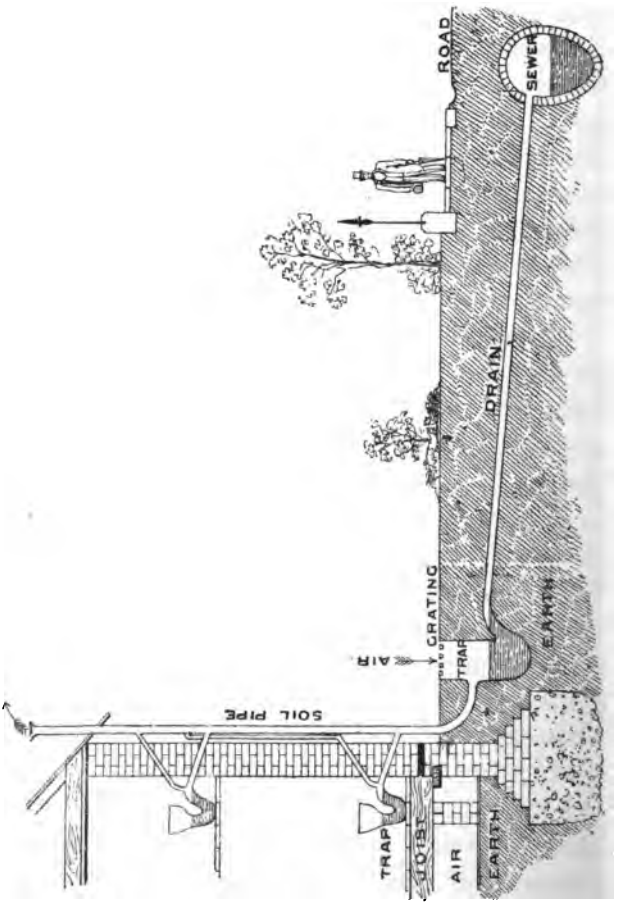
Floors.—Floor-boards should not be laid on the ground, but should be placed on and nailed to joists. These also should not rest on the ground, but should be fixed as shown in the diagram. An air space is by this means kept between the floor and the earth, and through this space the air from outside should be allowed to blow. Any damp which might

rise is thus carried away through gratings built into the wall for that purpose.

Basements.—This is the name given to those rooms of a house which are below the level of the ground. If possible, houses should be built without basements, as rooms thus placed are not so healthy as rooms built above the level of the ground or street. They are not so well ventilated, since the air cannot so easily pass into and out of them.

Walls are generally built of bricks; but where stone is plentiful and cheap, they are built of stone instead. The insides of walls are generally covered with paper; but although wall-papers are more pleasing to the eye than lime-wash and paint, they are not so clean nor so healthy. Unless great care be taken, papers harbour dust and insects; and for this reason, when rooms are to be fresh papered, all the old paper should be removed.

Besides affording shelter to insects and harbouring dust, many coloured papers contain poisonous dyes, which are apt to leave the paper and get into the air of the rooms. Diseases of the eyes and of other parts of the body are thus often caused; consequently great care should be taken, not only to keep


ROAD
SEWER
DRAIN
EARTH
CRATING
AIR
TRAP
SOIL PIPE
TRAP
JOISTS
AIR
EARTH

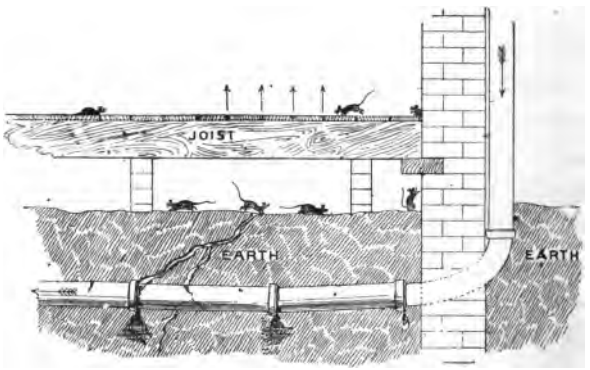
wall-papers clean, but to see that those having poisonous dyes are neither bought nor used.

Roofs are generally covered with slates or tiles. Unless these are sound and well laid, rain is liable to come through, when it will not only damp the air, but also spoil the furniture. Rain-water shoots should also be provided, so that the rain may not drip on the earth near the walls, but be carried away to the drains.

Drains.—More mischief is caused to health through drains, than through all the other parts of even a badly-built house. These should be planned and carefully laid before the walls are built. Drain-pipes should be made of good clay. They should be carefully burnt in a kiln, and afterwards as carefully and thoroughly glazed. Then they as safely hold water and sewage as jugs and basins hold water or milk.

All sinks and pans, which are connected with drains, should be of the best earthenware; and every part should also be well glazed. All joints should fit well, and should be thoroughly fixed with cement. The large drain which runs through a street is called the sewer, and the pipe which runs from a house to it is called the house-drain.

The pipe which runs down on the outside of a house from sinks and pans upstairs, is called the soil-pipe, and should be firmly fixed to the wall, so that the joints may not open or crack. It should not, after it goes into the ground, run right away to the sewer, but should enter a water-trap as is shown in

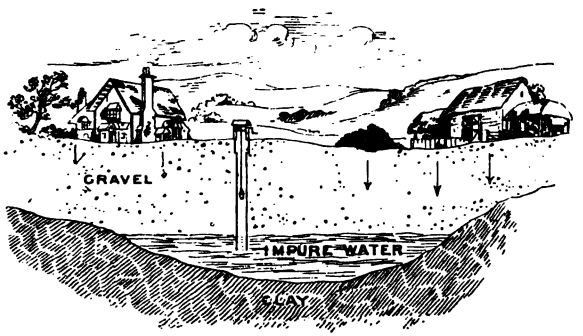


the diagram on page 56. If it runs under the house, as in the sketch above, from the back to the front, it must run into a trap.

The water in the trap keeps back the sewer air or gas; and, through the grating provided for the purpose, fresh air can descend into the trap, and pass out at the top of the soil-pipe. By this means sewer air is kept away

from the house, and no foul air is allowed to remain in the soil-pipe.

Where a water-trap is not provided, or where the drain is badly laid, or where the joints of the drain are badly made, sewer gas often escapes into the house, and rats find an easy entrance as well. There are not many substances about a house which rats cannot get through; and as they abound in sewers, the drains should be well laid.



Water-Supply.—In country districts people often fetch the water they require from springs, wells, rivers and lakes. There is great danger, however, in drinking water thus obtained. If the water be pure no harm will happen; but it is not often that

water thus obtained is pure. If water from a spring comes from a great depth, it will most likely be thoroughly good, as it will have been well filtered by the earth through which it has passed. The water, however, may have passed through but a little earth; and it may have washed farm-yard manure and other impurities out of the soil. If so it is not fit for drinking or for houshold purposes.

Many matters dissolved, like salt in water, do not colour water; but when taken into the body they often cause much harm. And besides this, all water, even the most pure, contains living animals which are far too small for the eye to see. Most of these are harmless; but some are not; and when the latter find their way into the body, they often stay and breed there, destroying parts of our insides and causing typhoid and other fevers.

Therefore the purer the water, the less chance there is of our drinking these hurtful animals, or germs as they are called. It is for this reason that doctors recommend the filtering of all water, and the boiling of all milk, which is to be used as food or drink.

Like the water of deep springs, the water

from deep wells is generally pure; but like that of shallow springs, the water of shallow wells is generally unfit for domestic use.

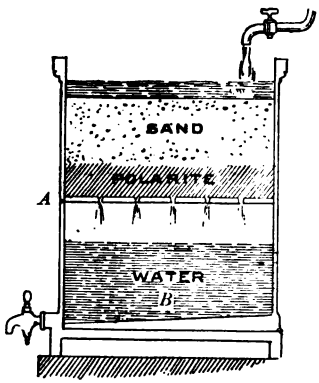
In towns, however, the houses are supplied with water by means of pipes. Water companies lay water-pipes in the streets, as gas companies lay gas-pipes; and in both cases, smaller pipes branch from the main pipes into the houses. For a great number of years, the water was only turned on from the main for an hour or two in the day, so that the cisterns might be filled for use. Now, however, the water is generally on, so that they are not often wanted. Cisterns, and all other vessels in which drinking water is stored, should be kept clean; and it would be just as well if the water were also passed through a filter.

Now that, by an Act of Parliament, water is kept always turned on from the mains, we have what is known as a constant supply. When the water was generally turned off from the mains, we had an intermittent supply.

No doubt the constant service of water is the better of the two. It is always to be had when wanted, there can be no excuse for dirty houses, and it is ready in case of fire.

Filters, although certainly good when clean,

are worse than useless when dirty. As they filter out of the water most of the impurities it contains, they must of necessity become dirty. If, however, this dirt be not removed, much of it is passed again into the water, often causing a great amount of harm. No filter can be considered a good one which cannot be so taken to pieces that every part of it may be cleaned.



Most of the water companies do their best to purify their water, by filtering it through three or four feet of sand; and recent experiments seem to prove that sand is about the best material for the purpose. A filter, known in the market as the Queen's, is one of the best. It is put together as shown in the sketch. The sand stops the passage of most of the impurities, and the polarite—a mixture of several finely-powdered substances which contain a great amount of oxygen—destroys most of the matters which have passed through the sand. At *A* there is an earthenware plate

in which there are many small holes; and through these holes the water drips into the space *B*, from which it is drawn off for use.

Seeing that many diseases are spread by water, it should be known that a Royal Commission of clever chemists, who were appointed by the Government, condemned all filters then known. They reported that all methods of filtering water failed to perfectly strain out of water the poison which caused disease. No doubt a clean, good filter does remove much impure matter from water; but there is no filter which is perfect. That being so, all should be careful neither to drink nor to use water which comes in any way from a place where it may have been polluted.

Water found in chalky, limestone, lava and granite districts is generally good; but water found in clays, sands and gravels is generally bad.

No town can be said to be well supplied with water where the pipes do not supply at least thirty gallons per person per day.

Baths.—No house, however small, can be said to be perfect which does not contain a bath; although, now that most parishes in towns provide public baths and wash-houses, it is, perhaps, not so necessary as it used to

be. For any person to be healthy, the skin must be kept clean; and, with a bath in a house, this is far more likely to be the case than in a house which has no bath. But, to be useful, they must be kept scrupulously clean; and a waste-pipe should be supplied, so that the water, when used, may be run off to the sinks and drains.

Dust-bins.—In times gone by the house refuse, that is, the ashes and kitchen refuse, was thrown into a corner near the house, and allowed to accumulate for weeks, and sometimes even for months. As the vegetable refuse, such as cabbage leaves and potato peelings, decayed, they gave off offensive and hurtful gases. Wherever anything is decaying, there microscopic life is found in abundance.

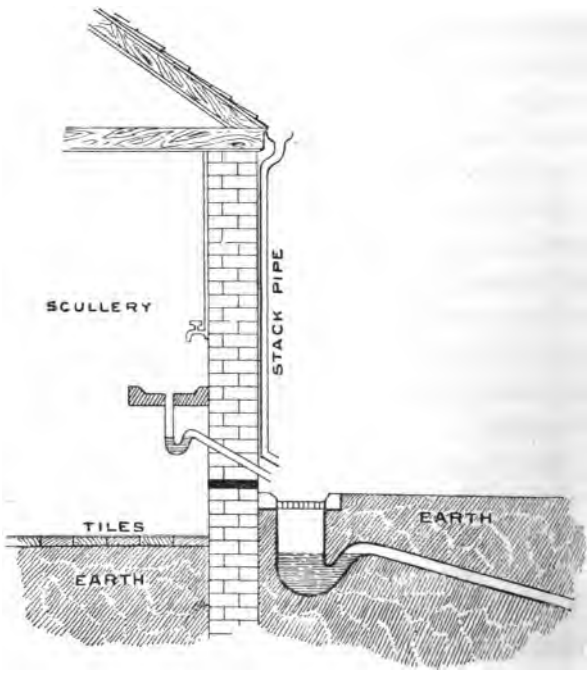
Many of these minute forms of life, both animal and vegetable, can exist in the human body; and there they often cause internal decay, leading at times to death. No doubt typhoid fever, scarlet fever, diphtheria and other diseases are thus caused. Common-sense therefore says that heaps of refuse, in which these little germs of disease breed, should not be allowed to accumulate either in or near our homes.

In recent years the law has been so altered that no person is allowed to keep a dirty house, nor anything which may cause illness or annoyance to any one living in the neighbourhood; and the parish authorities have the right to send their inspectors from house to house to see that this law is not broken. The law further insists that house refuse must be often removed, and that proper bins should be provided, so that the same may be removed without causing a nuisance. Although the law does not forbid the putting of vegetable and animal refuse into dust-bins, they should not be put there as a general rule. All that can be burnt should be burnt, and only ashes, dust and dry rubbish should be saved for the dust-cart.

The best dust-bins are those which absorb no hurtful matters, and which can be most easily and thoroughly cleaned. Galvanised iron is probably the best for the purpose. They must be so arranged that no rain can get into them, and they should be kept as far as possible from the house.

Sinks.—Kitchen and scullery sinks are great offenders against health. They should be kept clean, and the pipes draining them should go through the wall and discharge their

water over the grating of a trap outside. Further than this, the pipe should be bent or trapped under the sink, as is shown in the diagram, so that the water which remains in



the trap may prevent either impure air or insects from entering the house. Under no consideration should the sink-pipe go to the drain. If it does not go direct outside the

house and discharge into the open air, the sooner it is made to do so the better.

Stack-pipes.—Rain-water pipes are called stack-pipes. They should never enter the ground, but, like the sink-pipe, should dis-discharge the rain-water over a gully trap outside the house.

VENTILATION

A full-grown person, kept without food, would rapidly get thin—that is, his flesh, both fat and lean, would pass away. Such a person would lose more than a pound in weight every day. His flesh, in fact, would be destroyed by the oxygen breathed in from the air. But when flesh decays or is destroyed, it gives off noxious gases, which make the air extremely offensive to the smell, and hurtful to the health of those living anywhere near.

The matters which result from the decay of such a body would be largely carbonic-acid gas, ammonia and water. A mixture of carbonic-acid gas and ammonia is extremely offensive and hurtful. From the blood, into which these matters find their way, they are removed by the lungs, the kidneys and skin; and, as the excretions of the lungs and skin

pass into the air, it is plain that the air of a room in which a person lives or sleeps must soon become offensive and impure.

That which happens to a person kept without food, happens also even when he does take food. Whether he eats or not, the oxygen is always destroying his flesh, and his blood is always being made impure. The lungs and skin are, however, always purifying his blood, and are consequently always making the air around him impure. The food which an adult person takes is merely used to build up flesh in place of that which is being continually destroyed.

Seeing, then, that the air in which a person lives is always being made impure, and seeing also that these impurities would poison his blood and kill him and others living near him, it is necessary that impure air should be speedily got rid of, and fresh air supplied instead. This getting rid of impure air, and the supplying of pure air, is called ventilation.

In 1756, one hundred and forty-six Englishmen were, by one of the native princes of India, shut up in a small room in a prison. They were only kept there one night; but during this night one hundred and twenty-three of them died. They were not killed by

those who had charge of them, but they were poisoned by the impurities which passed from their own lungs and skin, and which could not get out of the room.

This perhaps is the worst case of foul-air poisoning on record; but it happens day by day, and night by night, in thousands of houses in every land. Here in England, the air of most of our bed-rooms, and of many of our living-rooms, is far too foul. This foul air does not get out, and fresh air does not come in. As a result the blood is not as pure as it might be, and far more illness occurs than ought to occur.

Nothing is more common than for persons to sleep in rooms with both the door and the window closed; and if the fireplace be also closed, the case is made even worse still. Nothing can be much worse for a person than to be breathing the same air over and over again; and yet, nine people out of ten think it the correct thing to shut themselves up in a close box at night for eight or nine hours at a time.

Those who study the various things which affect health, study what is known as hygiene,

and by experiments they have proved the following facts.

All air, whether it be over the middle of an ocean or in a slum in a town, on the top of a mountain or at the bottom of a mine, contains carbonic-acid gas. Thus no air is perfectly pure, and it is plain that the little carbonic acid found in fresh air is not hurtful to health; but, in excess, this gas is a deadly poison. From limekilns it is given off in abundance. It was but a short time since that two men in charge of such a kiln were poisoned in a short space of time. They had made up the kiln for the night, and lain down to sleep on a seat. They were careful to sleep on the windward side of the kiln, well knowing what danger they ran from the gas. But during the night the wind shifted round, and they never awoke from their hard-earned rest.

Similarly, when charcoal is burnt, carbonic acid is produced in abundance. It was but in the spring of this year, that through it two plumbers came to an untimely end. Being engaged in a large London house, they spent the night in the basement, keeping themselves warm with the charcoal fire which they used for melting their lead. Carbonic acid is

heavier than ordinary air, and so the room in which they slept soon became filled with the poisonous gas, and, like the men at the kiln, they were found dead in the morning.

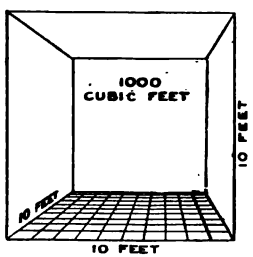
A still further, and even more sad case was in 1894 reported in the daily press. In one of the poor parts of London, a working-man lived in one room with his wife and two little children. Being out of work, and his family in want, he poisoned both himself and them with this deadly gas. He procured a few pieces of charcoal, and, after his wife and children were asleep, burnt them in a metal dish in the middle of the room. Closing both window and door, he coolly lay down by those who were near and dear to him; and the carbonic-acid gas hastened them all to their last, long sleep.

In ordinary living and sleeping rooms, however, the carbonic acid never becomes so deadly as this; but, unless fresh air be freely admitted, it becomes far too strong, and slowly but surely does a vast amount of harm.

A room which is ten feet long, and ten feet wide, and ten feet high, contains a thousand cubic feet of air. Such a room, if filled with pure fresh air, contains nearly half a cubic foot

of carbonic-acid gas, in fact two-fifths of a foot; so that fresh air contains about two-fifths of a cubic foot of carbonic acid in every 1000 cubic feet.

The nearer the air in which we live approaches this, the better for those who breathe it. But it is impossible to have the air in our homes as pure as it is outside; and so our bodies have become accustomed to air which is not quite pure.



When, however, the carbonic acid in the air amounts to three-fifths of a cubic foot in a thousand, the air is as impure as it can be allowed to be. In such air, ordinary people can live without any apparent damage to their health; but when the carbonic acid is greater in amount than this, health is sure to suffer.

Experiments prove that an ordinary person breathes out one-fifth of a cubic foot of carbonic acid every twenty minutes. Therefore such a person, shut up in a ten-feet room, adds to the two-fifths of a cubic foot already there, one-fifth of a cubic foot; and as this makes three-fifths, the air is then as impure

as medical men allow it to be. From this it is easy to see that one person spoils and makes impure 1000 cubic feet in 20 minutes; and it is equally easy to see that every person should have 3000 cubic feet of fresh air every hour.

Naturally the best place for a person to live is out of doors in the open air, that is if he considers only the purity of the air. But temperature and dampness have also to be considered; and therefore, as was shown in Book IV., man has at all times sheltered himself in caves, or huts, or tents, or houses.

The simplest way of admitting fresh air to, and of allowing impure air to escape from a room, is to open the door and the window. This, however, causes a draught, lowers the temperature and cools the body; and if these, or either of them, cause a person to take cold, the door and the window cannot be widely opened whilst such a person inhabits the room. Still, except in very wet or wintry weather, if rooms are small, every effort should be made to keep either the doors or the windows more or less open. Some arrangement may have to be made to

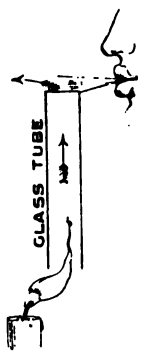
prevent a draught from blowing directly on those in the room; but fresh air must be admitted.

Where, however, rooms are large, and the persons occupying them are not numerous, the air is not likely to become very impure. The tops and bottoms and sides of both doors and windows are sure to fit more or less badly; and through the many spaces and chinks, fresh air is sure to come into the room.

Like most other things, air, when it is cold, is heavier than air which is warm; and heavy air always tries to displace warmer and lighter air. But rooms in which there are people and lights and a fire, are warmer than passages and unoccupied rooms outside; and the air inside such rooms is warmer, and therefore lighter than that which is outside. As a result the outside air forces its way into the warm room; and as the warmer and more impure air has to go out, that of the room is renewed, and the room is more or less ventilated.

In addition to this a fire warms the air over it; and as this air, being expanded, ascends in the chimney, that of the room moves towards the fire to take the place of that which has ascended. In this way air passes out of a room, and as the air which

comes into the room to take its place is purer than that which has left, the room is ventilated by the action of the fire. This ventilation, that is the passing of fresh air in and foul air out through doors and windows and fireplaces, is spoken of as natural ventilation.



But, in addition to this ventilation of rooms through fresh air forcing its way in, rooms are ventilated through air being sucked out. If an empty tube be placed near a lighted candle, and a puff of air be sent over the open top of the tube, the flame of the candle jumps up into the tube; but if the flame passes into the tube, it is because the

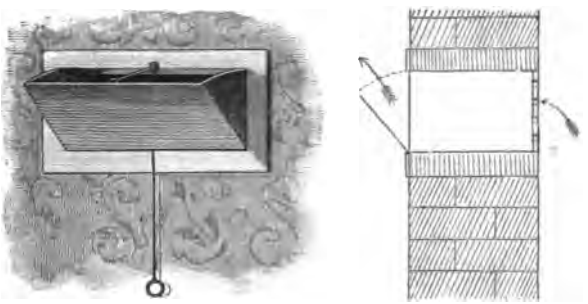
air close by passes into the tube. Thus if, when air blows over the open end of a tube, air ascends from the bottom, it is plain that the moving air at the top has sucked air out of the tube.

The same thing happens when wind blows over the tops of chimneys. The wind, by what is called aspiration, sucks air out of the chimney; and as a result, that at the bottom, that is in the room, passes up and away. To take its place, fresh air comes into the room, and thus through wind and chimneys, rooms are ventilated. The wind in this part of the world is seldom calm. Sometimes it is blowing strongly, and sometimes it moves but gently; but as it blows on an average, taking one day with another, at the rate of nine miles an hour, winds take an important share in the ventilation of our homes.

From this the folly of closing up chimneys is plain. Yet it is no uncommon thing to find bed-room stoves closed, or boards placed in front of them and papered around to prevent the air of the room from getting out. No wonder diseases, which are caused by foul air, are so common, and no wonder that more than one quarter of those who die, die of diseases of the lungs.

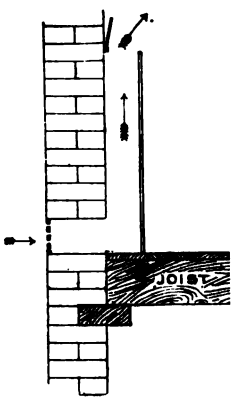
ARTIFICIAL VENTILATION

Besides ventilation through doors, windows and chimneys, many plans have been invented to assist this natural ventilation. Some of these plans are best suited for large rooms and some for small.



The Sherringham Valve.—A look at the sketch will explain how this acts. If it be placed in the wall at the top of the room, the warm and impure air will escape to the air outside, and its place will be taken by air coming in below. If, however, the wind be blowing against the wall in which it is fixed, the colder air will force its way in at the top of the room, and fall on the people below.

To prevent the draught thus caused, the valve can be closed by a string. A valve of this kind, to admit fresh air, can be placed lower down in the wall, and covered with a picture hung in the usual way. The incoming air is thus spread along by the side of the wall; and, as the opening cannot be seen, the draught will seldom be felt.



Tobin's Tubes.—By means of these tubes, fresh air can be admitted into a room without causing a draught. The accompanying sketch shows the course of the air; and it also shows that the tube can be closed when it is not needed. Tobin's tubes may be of any shape or form, and may be plain or ornamental. They are among the most efficient means of ventilation, and can be made not only useful, but an artistic addition to a room.

Beyond these two artificial means of ventilation, but little has been invented for our ordinary rooms and dwellings. Although builders have devised many thoroughly useful plans for the ventilation of large rooms

and public buildings, but little has been done for the house of the ordinary citizen.

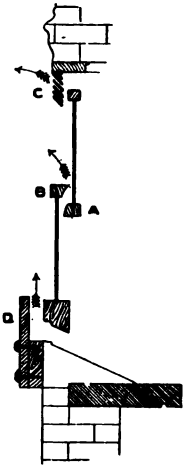
In towns and cities land is so dear and rents so high, that rooms for all, except the well-to-do, are small, and the draughts close to those who live in them. It is on this account that so many people suffer from colds, and that the death rate rises in the winter.

It is not that cold air is in itself bad for health, since on the coldest day in winter people are all the better for being out of doors. But a stream of cold air pouring on a person is quite another matter. This chills but a part of him; and this unequal cooling and warming of the body gives most persons cold.

Plans, which on paper seem to be perfect, seldom work well in practice. In theory, cold, fresh air should enter our rooms from below, whilst hot, foul air should escape from above. In practice, however, the cold air insists on coming in from above, whilst the warm air has to get out in the best way it can.

Thus ordinary rooms have to depend chiefly for ventilation on the door, the window and the chimney. The accompanying sketch shows how this takes place by the window; and it shows also that the incoming air is thrown upwards, so that a draught may not

blow directly on persons in the room. *A* is the top sash, and *B* the lower; *C* represents the venetian blind, and *D* a board screwed to the window-frame at the bottom. Air thus admitted and regulated by the curtains, is sufficient for all practical purposes.



WARMING

The warming of rooms in winter, and the cooling of them in summer, are closely connected with ventilation; and as the tempera-

ture of a person in health is 98° F., means must be taken to keep it so both in summer and winter. Taking one thing with another, and one person with another, 60° is the most comfortable temperature for the air in which we live.

When the temperature rises much above this we feel uncomfortably warm, and when it falls far below we feel uncomfortably cold. When it is warmer the temperature of the blood would rise beyond 98°, but then the extra heat is used in melting our tissues, in bringing perspiration through the skin, and in evaporating it into the air. On the other hand, when the temperature falls much below 60°, we do our best to keep in the heat of the body by wearing warmer clothes, by warming our rooms and by work.

The ancient Britons in this country, and the ancient people of all cold countries, have at all times used fire as a means of keeping themselves and their dwellings warm. In those days coal was unknown, but the woods and forests were at hand; and the charred remains found in their caves show that wood fires were used to keep up the temperature. In countries where no wood was to be had, oil and fat were burnt, as is the custom in the

ice-huts of the Laplanders and Esquimaux at the present time.

The grates and stoves which we find in all modern houses are almost entirely of recent invention. In many country-houses now, and in more country-houses four hundred years ago, there were merely the wide open chimney

and the broad stone hearth. Upon this stone hearth the inmates burnt their wood, and under kettles covered with the hot ashes, they cooked their bread and other food. In Shakespeare's house at Stratford, things have been preserved almost as they were; and there may still be seen the old-fashioned hearth and chimney, around which our forefathers sat

during the long winter evenings of times gone by.

But with the march of time and the development of intelligence, things have vastly improved; and now all but the very poor enjoy comforts unknown even to the well-to-do of the past.

Grates, or stoves as they are also called, are either closed or open. They are open when the fire throws out its heat through the bars, and they are said to be closed when the fire is shut up in iron or earthenware, and when the air is warmed by the heat which the stove throws out into the air around it.

Our dwellings are, here and there, at times warmed by hot-water pipes, and through warm air sent into the rooms by suitable pipes and gratings; but of all the means provided by builders and inventors, the open grate is most in favour with the British people. An open fire, whether of coal or wood, radiates its heat directly into the room; and for many reasons, to say nothing of the cheerfulness, an open fire is certainly the best for health.

At the same time, open grates are the least

economical, as a great deal of the heat passes away through the chimney; but as the air of the room is drawn to and passes up the chimney with it, the benefit of ventilation more than makes up for the extra cost of fuel.

An open grate, to be of the greatest use, should fulfil the following conditions:—

It should stand well out in the room.

It should be low down.

It should be more or less closed at the bottom.

The hearth should be tiled.

The front and bottom only should be of iron.

The jambs should slope.

The chimney should be small.

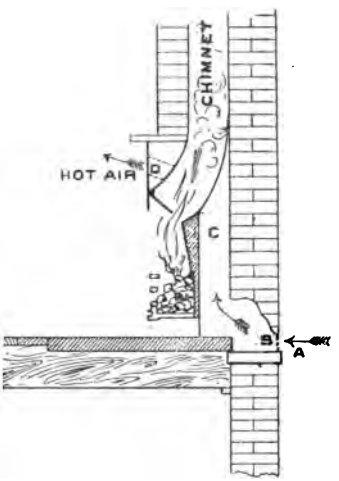
It should have a regulator to admit much or little air below the grate as may be desired.

And, if possible, it should admit warm fresh air from outside.

Most of the grates found in ordinary houses fail altogether to come up to this standard of usefulness. They are mostly made of iron; and as iron is a good conductor, far too much heat is conducted away to the walls instead of being radiated into the room. The sides and back of a good stove should be made of fire-clay, as this is a bad conductor but a good

radiator. Conducted heat is wasted, but radiated heat finds its way to all parts of a room.

For the same reason a tiled hearth is more economical than a rough, stone one. By the latter the heat, which falls on it, is absorbed and partly conducted away; but from the tiled hearth it is reflected and sent out into the room. Inattention to these little matters causes a deal of loss; and, as a rule, much of the heat stored in coal is wasted.



The accompanying sketch shows how fresh air can be warmed and admitted to a house.

A is the air outside.

B is a grating in the wall.

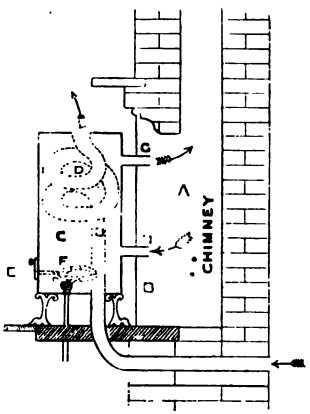
C is a hollow in the brickwork.

D is a grating under the mantel-shelf.

If, when the fire is lit in the morning, the grating *D* be closed, the air in *C* gets warm. When the chamber or hollow is thoroughly

warmed, the grating may be opened, after which, for the rest of the day, the incoming air is fresh and warm.

Fresh warm air may be also admitted to a room by the use of gas, whilst the fumes resulting from the burning of the gas are carried away to the chimney. In the explanatory sketch



A is the chimney.

B is a sheet of iron blocking up the fireplace.

C is a stove, with two pipes passing through B.

D is a coiled pipe passing through the top and bottom of the stove, and thence through the wall outside.

E is the door.

F is a ring of gas-burners.

On lighting the gas the fumes pass through the pipe *G* to the chimney, whilst fresh air passes into the stove through the pipe *H*. This air supplies oxygen to the gas, but does not come into the room. The heat of the gas

flame soon causes the coiled pipe *D* to become warm, and this in turn warms the air inside. This warm air passes out through the hole in the top of the stove, and fresh air comes in from outside the house to take its place.

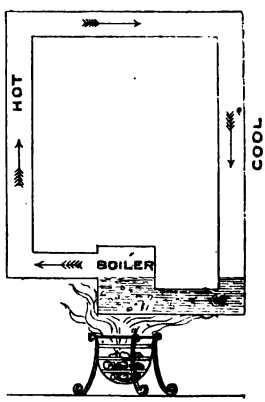
A stove of this kind, when once fixed, is a great source of comfort in a house. It is clean; there are no ashes; no fumes pass into the room; it is always ready; and clothing can always be aired by it. If two screws be fixed to the ends of the mantel-shelf, and a wire shelf be suspended under it by a string, there need be no excuse for wearing damp clothes in even the dampest weather.

Combustion is the term applied to the burning of things by the oxygen of the air.

Slow combustion stoves are closed, and no heat comes direct from the fire into the room. The fire heats the iron of the stove, and this iron both radiates and warms the air. The air to supply the fire is sometimes the air of the room, and sometimes it is supplied by a pipe from outside. The smoke is carried away by an iron pipe which passes through the upper part of the wall.

Stoves of this kind, although good for raising the temperature, are not good for health. In the first place, there is but little

ventilation, such as that which is obtained by an open grate; and the air soon becomes too dry and stuffy. With the air breathed out by the lungs, animal matter is also breathed out, and as this, in passing about the room, comes in contact with the hot iron of the stove, it is burnt, and the gases resulting from it remain in the room.



In addition to this, whenever coal is burnt in a closed stove, a poisonous gas named carbonic oxide is produced, and when the iron of the stove becomes very hot, this gas passes through the hot iron into the air of the room. Slow combustion stoves are certainly very handy and very economical, but they are as certainly not suited for small rooms.

The heat of the kitchen fire is often used to warm the other rooms of a house, by means of hot-water pipes. This might be always done; but the pipes are generally carried to the bath-room only. Hot water lighter than cold water, and if heat

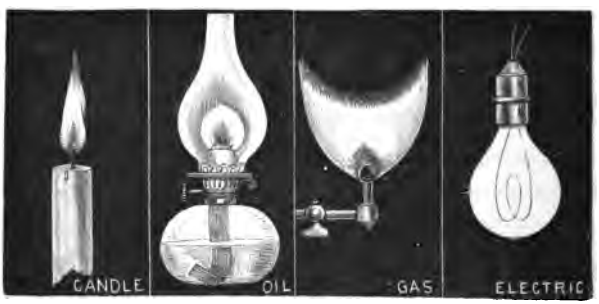
be applied to a water-pipe, as in the sketch, there is a circulation of water owing to the ascent of the warm and lighter water. It is in this way that greenhouses are warmed; and it is also in this way that hot water is sent to a bath-room, and sometimes to other rooms in a house.

But, although this system of warming is fairly good for large rooms and large houses, it is not well suited for small rooms and small houses. It in no way helps to ventilate a room; and although the air is warmed, the rooms become close, and the air impure. For rooms, however, which are not rendered impure by people living in them, the warming by hot-water pipes is clean and economical.

LIGHTING

In the lighting of our houses and streets and public buildings, vast improvements have been made in recent years. From the oil lamps used to light our streets at the beginning of the century, we have come to electricity; and in our houses, we have progressed from the tallow candle of 1860 to the improved gas and electric lamps of to-day.

Probably the time will come when, not only our domestic lighting, but our domestic warming and cooking, will be done by electricity; but whether this be so or no, there can be no doubt that the introduction of electric lighting has compelled our gas companies and gasfitters to make great im-



provements in the gas-lighting of our streets and houses.

As is well known to all, gas is prepared in the gasworks from coal, and sent into our houses by pipes which are laid in the streets for that purpose. In our homes, burners are provided, so that the gas may be burnt wherever we may happen to want it. But, in liberating gas from coal and burning it in our homes, we are merely liberating the

ancient light of the sun. Coal is formed from ancient vegetation, which for ages has been entombed in the earth. But this vegetation was caused to grow by the light and heat of the sun; so that, when we burn coal and gas, we do nothing more than liberate some of the heat and light of the past, and use it for our various needs in the present.

When we consider the convenience and comfort which arise from man's cleverness, and look with admiration on the splendid lights which he supplies for his own use, it may be as well to note how insignificant is his work after all. On a bright, moonlight night, his finest gas-lights seem as nothing compared to the light of the moon. They throw their light but a few yards from them; and yet the moon lights up the whole of his fields and the whole of his country.

And not only so. In four-and-twenty hours it as brightly lights up every part of every ocean and every continent. Europe, Asia, Africa and America, to say nothing of the numberless islands which stud the oceans, are supplied with light which seems to blot out, or rather to outshine, the gas-lights of man. And even this light of the moon is but a reflected light, a mere line of light from the

sun. So, whether our homes are lit up by a tallow candle, a gas-burner, or the electric light, it is but a small thing after all.

Of all the lights used for household purposes, the electric light is the only one which does not cause mischief to health. Candles and gas are burnt in the same way as we ourselves are burnt. As we slowly burn within, by the action of the oxygen on our tissues, carbonic-acid gas and ammonia and water are produced; and these pass away by the lungs and skin into the air. In the same way, when a candle burns, it passes away into the air as carbonic acid and ammonia and water.

Gas is more complex than the fat of a candle; and besides the carbonic acid, ammonia and water, other matters are produced and help to render the air impure. As a result of this, the burning of gas makes the air of our living-rooms impure, in addition to the breathing of those who live in them. Thus, where gas is used, far more air is required than is required in rooms where it is not used; so that the ventilation of such rooms should be far more perfect than it need be where no gas-lights are in use.

As stated in the chapter on "Ventilation,"

an adult person breathes out six-tenths of a cubic foot of carbonic-acid gas in an hour, but an ordinary gas-burner gives out about thirteen times as much. As a result, any thoughtful person must see that gas, flaring away in rooms, whether they are bed-rooms or no, is not only using the oxygen which he needs for himself, but is filling the room with carbonic acid, which is bound to do him a vast amount of harm. It may be that this harm is but slowly done, but it is bound to be done, sooner or later, for all that.

Lamps.—In districts removed from towns, where the houses are too scattered to allow of coal-gas being supplied, as well as in houses where gas is considered unhealthy, oil is chiefly used for light. So great have been the improvements made in the manufacture of lamps, that as much light can now be obtained from paraffin and other oils as can be obtained from gas. More care, however, is required to guard against accidents, and more trouble has to be taken in the cleaning and lighting; but the effect on health is much the same as it is with gas. The oxygen of the air is used in the burning of the oil, and the impurities which result from the combustion are passed away into the air of our rooms.

FURNISHING

Do I really want it? Can I do without it? These are two questions which one of the richest men in England advised all persons to ask themselves when they think of going into a shop. According to him, no one should buy anything which is not really useful.

Whatever may be thought of a person whose one aim in life is that of saving money, there can be no doubt that many people squander their income in the most foolish way. A person who seems to think only of saving, and has no idea of the many little extra comforts of life, is one to be pitied; but any one of limited means who spends every penny he earns, simply to appear to be as grand as other people, is a person to be more pitied still.

A desire to be always in the fashion, and to be as grand as every one else, is the ruin of thousands, both rich and poor. There is no reason why the advice of Shakespeare should not be carried out, viz.: "Costly thy habit as thy purse can buy;" but that is no reason why every one should wish to buy everything which is costly, whether he wants it or not,

simply because some one else has something to sell.

There can be no doubt that a comfortable house is not made the less comfortable by its furniture being of the best and artistic; but where a person has not an unlimited income, comfort and utility should stand before the artistic and the ornamental. Buy what you want, and buy it of the best if you can, is good advice for the furnisher of a house. That which is cheap is not often good, and is therefore generally dear in the end.

Everything which is brought into a house for use should add to the comfort of the persons using it. A man, after the worries of daily life, thinks more of an easy arm-chair than of all the most gorgeous suites in existence. And it is the same with all the other usable furniture of a house. Couches and chairs and beds should be for comfort, instead of for show and grandeur.

Those who are starting in life will do well to be steady and thrifty. They should buy nothing they cannot afford, and they should buy nothing until they have the money to pay for it. But when they have once bought that which they want, they should take care of it. Everything should be kept in its place;

and it would be well, in most houses, if there were not so many things for this one place. When a thing is not wanted, it should be got rid of, and not stowed away on shelves or in cupboards, taking up the room of things which are really wanted.

In kitchens and sculleries and living-rooms there are generally twice as many things as are necessary; and things not wanted are generally in the way and cause much trouble and discomfort. The less there is kept in a house, the less there is to keep clean, and the greater the chance that the house will be orderly and comfortable.

In bed-rooms there are, as a rule, far more things than are wanted. There the great object should be air; and the more the furniture, the less the room for the air. And in addition to this room or space, there is the matter of dust and disease. In times of illness, everything that can be removed is taken out of the room. Curtains and cushions and carpets have to go, but they are brought back directly the doctor is gone.

All this is not as it should be. Everything which is wanted should be obtained; but people should not fancy they want as many

things as they often do. Pictures and images and knick-knacks of all kinds are very well in their place; but the walls of ordinary houses should not be looked on as picture-galleries, nor the sitting and drawing rooms as museums for curios. At the same time, although bare walls and floors are more healthy than those which are covered, they are not so pleasant and attractive to the eye, nor so likely to make our homes lively and bright.

CLEANING

In the preceding chapters we have considered the position and aspect which a comfortable and healthy dwelling-house should have; how it should be built and arranged; how it should be drained, ventilated, warmed and furnished. If we could have all as we have considered it, we should have an ideal house.

We should soon discover, however, that new things do not remain always new, nor clean things always clean. The wear and tear of daily home life has to be provided for. There cannot be a much sadder sight than a neglected home; and the most costly and beautiful fur-

niture soon loses its beauty if dirt and dust are allowed to accumulate on it; while the most homely surroundings are improved and beautified if attention and care are bestowed upon them.

It is quite true that all persons do not value cleanliness in the same way; but whether they value it or not, it affects the whole household to a greater extent than is generally believed.

Cleanliness affects the health, the comfort, the character and the economy of the family. It affects the health, because dirt on the walls or the floors or the furniture of a house decomposes and throws off gases and vapours, which taint the air and make it impure and unfit to breathe. In cases of disease, dirt harbours germs which still further spread the disease.

Cleanliness also affects the comfort of the family, for there are very few people who do not feel more comfortable in clean surroundings than they do in dirty ones. How much brighter and more warmth-giving a fire is when burning in a clean, well-polished grate than when a grate is half-filled with ashes and dust! Then again, as every one knows, light is one of our greatest comforts, and

yet how many people live in a state of semi-darkness, because they do not take the trouble to keep their windows as clean as they should do!

In the case of bedding, cleanliness keeps away vermin, for although dirt does not actually breed insects, they thrive best in it. The comfort of cleanliness is within the reach of all; and yet how many are driven to spend their evenings away from home because of the dirt and discomfort that reign there! Surroundings have much influence in forming character. Dirt is degrading and demoralising; cleanliness is elevating. A woman who keeps her house clean, and is never ashamed to allow any part of it to be seen, is conscious of a feeling of self-respect which no dirty housekeeper could ever feel.

Cleanliness is economical. Furniture lasts longer in good condition when it is kept clean; and very plain things can be made to look equal to more expensive ones by a little expenditure of time and trouble in their cleaning and polishing.

Time and Order of Cleaning.—As cleaning is such a necessary part of the routine of every well-conducted house, a due amount of time should be devoted to it; and it should be

done in proper order, and not in a hap-hazard sort of way. Division of time and labour is a great help. Too much should not be attempted in one day. It interferes with the comfort of the inmates, and wears out the bodies, and sometimes the tempers of all concerned in the work. There is also the fear lest in the hurry the cleaning should not be thoroughly done, as work but partly done is partly a waste of time. It is a saving of time and labour to clean well; because things remain clean much longer when they are well done than when they are done in a slovenly, careless way.

In order to ensure that no part of the house-cleaning is overlooked, every housekeeper should have set times for doing her extra work. Besides the ordinary daily work which must be done in every household, special days should be set aside for the more thorough cleaning of special parts.

Monday, for instance, might be given to the "turning out" of the best sitting-room, as in all probability it will have been used on the Sunday. Tuesday and Wednesday might be devoted to the weekly washing and ironing. Thursday is a good bed-room day, *i.e.*, a day when bed-rooms are swept and dusted,

when curtains are shaken, and windows thoroughly cleaned. Friday might be the sitting-room day—the day on which the ordinary living-room has a thorough cleaning.

To well clean a room which is used every day is hard work, and should be begun as early as possible in the morning, especially if, as is the custom in some households, the spoons, cruets and other silver articles are cleaned on that day. Then there is Saturday left, and this day is generally devoted to kitchen and scullery work. On that day also the yards might be scrubbed, and the drains and sinks cleaned and flushed.

DAILY HOUSEWORK

The amount of cleaning that a house requires day by day must be regulated by the extent to which it is used. In wet weather, when the roads and streets are muddy, more dirt is carried into the house than is carried when the weather is fine. As a rule the things which require daily attention in most houses, are the sweeping and dusting of rooms in daily use; the removal of ashes and the tidying of grates; the making of beds and the dusting of bed-rooms; the sweeping and

dusting of the various passages, and the cleaning of the doorsteps.

Besides this, there is the daily work of the kitchen. This consists in washing up after meals, cleaning knives, washing saucepans and other cooking utensils. Then the kitchen must be swept and dusted, the table and dresser scrubbed, and the sink in the scullery cleaned.

WEEKLY HOUSEWORK

The Sitting-Room.—Begin by taking off the table-cover, shaking it well, and folding it up. Take up the hearth-rug and any mats that are in the room; shake them and lay them, folded evenly, in a place outside the room, where there is no danger of their being in the way. Lightly shake the window-curtains, and pin them up. Take all chairs, and other movable articles of furniture, into the passage or hall. Dust all ornaments, and place them, with any small, light articles, on the centre table. Cover them up well with a dust-sheet. Cover also with dust-sheets all the furniture that is left in the room. Then, with a long-handled broom, with a duster tied over it, sweep the walls.

Having done this, sprinkle the carpet with well-washed tea-leaves, and sweep towards the fireplace with a long-handled carpet broom. The broom should be kept in front of the sweeper, and as near to the floor as possible. If, as is sometimes the case, it is occasionally jerked into the air, it causes a cloud of dust to arise, which resettles on the things around, causing extra trouble.

For the corners of the room and around heavy pieces of furniture, a stiff hair hand-brush should be carefully used. This, together with a dust-pan, is far more useful in removing dust than the long-handled brush, which, in corners, can only be used with damage to the paint and the furniture.

As soon as the dust has settled, the fireplaces should be thoroughly cleaned. Before beginning, however, lay down over the carpet in front of the grate, a piece of carpet or sacking which, in a well-ordered house, is kept for the purpose. Then gently sweep down all soot which can be easily reached; and, having as gently removed the cinders and ashes from the grate and hearthstone, carry them out in the ash-box, to be sifted in the dust-bin. This done, clean the fender, fire-irons and grate as described on p. 110.

When this has been done, remove the ashes and clean the grate. Wash the marble mantelpiece with a leather, and dust the pictures around the room. After this, clean the window, and dust round the wainscoting.

The dust-sheets may then be removed, the furniture cleaned, and the chairs brought in from outside and returned to their places. The ornaments and small articles should also be replaced, and the hearth-rug and mats laid down. Last of all, the centre table should be rubbed, and the table-cover unfolded and spread.

The Bed-Rooms.—Open the windows, both at the top and bottom. Take down the window-curtains, bed-curtains and valances. Shake all these and fold them up, and remove the bed-clothes on to a couple of chairs. If possible, take off the bed and mattress, and with a brush and duster, dust the bedstead. Then, with a clean dust-brush, brush the mattress, being careful to pay particular attention to the corners and edges. It is surprising how dust accumulates round the edges of mattresses, and in the hollows made by the tuftings.

Having replaced the mattress and bed on the bedstead, make up the bed. Then spread

over it a clean dust-sheet. Dust and clean all the small articles and ornaments from the mantel-piece and dressing-table, and put each one as it is cleaned on the bed. Wash all the toilet ware with soap and water, being careful to remove all stains. Put these also on the bed, and cover all over with another dust-sheet. Next, take out to the landing the chairs and all other movable furniture; cover over all that is left, and, if the carpet is in pieces, take up the pieces and shake them out-doors. After this sweep the walls and the floor, and clean the grate; and when all the dust has been removed, clean the windows and scrub the floor.

When the floor is perfectly dry lay down the carpet, and bring in the furniture that was carried outside. Then the dust-sheets may be removed, and the ornaments and all other things returned to their proper places. Lastly, put up the curtains and valances, and smooth the bed, taking care, before leaving the room, to look round and see that all is as it should be. In damp or wet weather it is unwise to scrub a bed-room floor. It should, instead, be well rubbed with a dry cloth or duster, which should be frequently shaken during the work.

The Landing, Staircase and Hall.—Begin by removing or covering with a dust-sheet any coats or hats that may be hanging in the hall, or on the landing. Take up all mats and shake them. Be careful to see that the doors of all rooms are closed, so that no dust can get into them. Holding a dust-pan in your left hand, sweep the dust from each step of the stairs into it, using a hard brush for the carpet, and carefully brushing the dust from all corners and sides with a softer one.

Next sweep the hall, and then with a duster dust all the uncarpeted parts of the landing and the staircase, beginning at the top, and using a dust-brush for the bottoms of the stair-railings.

If the hall is covered with oilcloth, wash it with soap and water, rubbing it afterwards with a dry cloth till it is quite dry, and then polish it with a mixture of beeswax and turpentine. Dust and clean the hall furniture, and lastly, return the mats to their places.

The Kitchen.—In cleaning a kitchen the grate should receive the first attention, and all soot and ashes should be removed after the chairs have been moved into the passage or the scullery. As soon as this is done, dust down the walls and sweep the floor with a

long-handled broom. Move all things from the dresser and other shelves, and when you have cleaned them and the shelves return them to their places.

When all dust is cleared away, clean the window and doors, and scrub the dresser, table and floor. When the floor is dry, dust and bring in the chairs, and replace such mats as may be necessary. It is by no means uncommon to find inexperienced persons beginning to clean a kitchen by scrubbing the floor. This is not as it should be. The floor is the last thing to be done.

The Scullery.—All cooking utensils should be cleaned after being used, before they are put away, so that the first thing to do in cleaning a scullery is to remove saucepans and all other things from the shelves and walls, and to cover them with a coarse cloth. Pails, brushes and other miscellaneous articles should then be moved into the yard for a time. After this the walls should be swept down; if there be a grate it should be cleaned, and the floor should be swept. All shelves should then be washed down; and if any part of the walls is painted, they also, and the doors should be washed. The saucepans and the other utensils should then be re-

turned to their places, the table and sink should be cleaned and the floor again swept or scrubbed.

Floors.—Before beginning to scrub a floor it should be well swept, and the following things should be at hand:—A pail of warm water, a piece of soap, a scrubbing-brush, a woollen floor-cloth and a coarse linen one. A piece of old blanket, or old flannel garment, does very well for the former, an old kitchen towel for the latter. It is wise also to have a small kneeling-mat.

With the woollen floor-cloth wet as much of the floor as you can comfortably reach, using plenty of water. Put some soap on the scrubbing-brush, and scrub as hard as you can. Brush in the direction of the grain of the wood, leave no spaces unscrubbed, and be careful to use the fan-like end of the brush for the corners.

When this is done remove the dirty water from the floor with the flannel, making the boards as clean as you can. Then with the drying-cloth well rub the spot, washing and wringing the rubber as often as may be required. The drier the floor is left after scrubbing, the better it will look when finished. If the floor be dirty, the water will require

to be frequently changed; in which case it is a good plan to use two pails, one in which to wash the woollen floor-cloth, and another for the drying one. Soda should never be used, as it spoils the colour of the boards. It is very desirable that, in scrubbing a floor, one should begin at the window end and move backwards to the door of the room.

Carpets.—Before sweeping a carpet sprinkle on it some well-washed tea-leaves, or if these are not at hand, any leaves from the garden, washed and left damp, do almost equally well, In strewing the leaves over the carpet, begin at the window end of the room and walk backwards to the door. Then, with the long-handled broom, begin at the door and sweep towards the fireplace. Hold the broom firmly in front of you, keep it close to the carpet and brush as lightly as you can. If the bristles of the broom are strongly pressed on the carpet, the broom will be spoiled, and the dust will not be removed. Sweep a small part of the carpet at a time, as it is better to do the work at once than have to go over the carpet again. Having gone over the room with the broom, take the hand-brush, and well brush the dust from the edges and corners into the dust-pan.

If the carpet is old or faded, get a pail of cold water, and put into it a table-spoonful of ammonia. Wet a clean towel in this, wring it out as dry as you can, and rub lightly all over the carpet, paying particular attention to the most faded parts. The towel

will need to be washed in the pail several times during the process.

Grates.—Spread in front of the grate a piece of carpet or sacking, kept for the purpose, or a large sheet of stout brown paper. On this place the black-lead and brushes, as well as

the fender and fire-irons, and well clean them there.

Having put the fender and fire-irons on one side, gently sweep the soot from the lower parts of the chimney and grate; and having as gently removed the cinders and ashes both from the grate and the hearth, take them out to the sifter and dust-bin. This done, mix a little black-lead into a thin paste with either water or turpentine. With a small brush cover the grate lightly with this, and immediately brush briskly with a hard grate-brush until no loose black-lead is left on any part of the grate. Then with a softer brush polish until all is bright and shining.

A little black-lead and a great deal of labour produce better results than a little labour and a great deal of black-lead.

Steel fire-irons should be cleaned with finely-powdered bath-brick which has been mixed into a paste with a little oil, and they should be afterwards polished with a dry leather or duster.

Brass lacquered fire-irons are much in use at the present time. Lacquered ware, if well taken care of, requires little attention except that of the duster. Should, however, any stain have to be removed, it should be gently

rubbed with a soft oiled rag, and then as gently polished with a leather or duster.

Windows. — Before beginning to clean a window, have at hand a sponge, a chamois leather, and a pail of clean, cold water. Having carefully dusted all the window-ledges and framework, wash the upper panes with the sponge, using plenty of water, and frequently washing the sponge. Wash the leather in clean water, squeeze it as dry as possible and rub it over each pane till no water is left on the window, and then proceed with the lower panes in the same way.

This is an excellent and quick way of cleaning windows, and is much less troublesome than the old-fashioned one of polishing with dry dusters. Windows should not be cleaned while the sun is shining on them, or they will not look well. Should there be no sponge at hand, a piece of rag will do for the washing of the window, but a sponge is better as it carries more water, and leaves no threads or fibres. In frosty weather glass is apt to crack unless it be cleaned with great care.

Furniture.—To clean furniture a good polish must be either bought or prepared. An excellent and inexpensive one can be made in the following way :—" Cut up a piece of bees-

wax into small flakes or shreds, and put them into a stone jar or jam-pot. Pour in sufficient turpentine to well cover the wax, and stand the jar in an oven which is slightly warm, or place it on the hob. Stir the mixture until the wax is melted, and allow the polish to cool.

If furniture has been allowed to get very dirty it will require washing with soap and water. In this case all soap should be washed out of the crevices, and the furniture should be thoroughly dried before the polish is used. Should the furniture not require washing all

dust must be removed, a soft brush being used for the corners. Having done this, put a small quantity of the paste on a piece of flannel or an old woollen sock or stocking, and rub it over the furniture. When every part is smeared with the paste, take a soft duster and rub vigorously until all the paste is cleared off, and a bright shining surface appears.

Paint.—This operation requires time and care, the danger being that while you are removing the dirt, you might also remove the paint. To avoid doing this, dissolve in hot water sufficient soap to make a lather. Soak a piece of old flannel in this, and gently rub the paint with the wet flannel till the dirt is moved; then with another piece of flannel or soft rag, and a pail of clean warm water, wash off all the soap and dirt, and with a clean dry leather or duster, rub lightly till the paint is dry.

Drinking-Glasses.—Wash them with a small linen cloth in hot water; then dip them into cold water, and stand them upside down on a tray to drain. Dry them with a soft kitchen-towel, and polish with a dry duster or a leather.

Plates and Dishes.—Remove all bones and scraps from the plates, and scrape off as much grease as possible. Have ready a pan of hot water, into which you have put a small piece

of soda. In this wash the plates, using a dish-cloth to do so. Dip each plate as soon as it is washed into a pail of cold water, and then stand it on a board or tray to drain. When all have been well washed and drained, they should be dried with a towel and returned to their place. Should there be a plate-rack fixed

in the scullery, the plates can be put directly from the pail into it. There they will dry, and merely require dusting before being used.

Bread-Trencher.—Put the trencher into a pail of warm, soapy water, and with a soft scrubbing-brush, well scrub it on both sides and around the edge. When this has been

done, wash it again in clean warm water and then again in cold, after which it may be set to dry on the window-sill, as it will be all the whiter for being dried in the open air. The handle of the bread-knife should be cleaned in the same way.

Knives.—Before beginning to clean knives they should be well washed and wiped dry. Then some bath-brick should be rubbed, or some knife-powder sprinkled on the knife-board, and the knives well rubbed on both sides and back. When the stains have been thoroughly removed the knives should be carefully wiped with a duster.

Knives look better and last longer if they are cleaned every day. By this means the stains are more easily removed, and the knives require sharpening less often.

Saucepans. — As soon as a saucepan is emptied, pour into it some hot water, and set it on a cool part of the kitchener until you are ready to wash it. Wash saucepans inside and outside in hot soda and water, using a cloth kept for the purpose. A saucepan brush is very useful to brush off any bits that may adhere to the inside; and the inside should be dried with a coarse towel. When the saucepans are washed, they should be turned upside-

down on a shelf broad enough for the handles as well as the pans, so that a clear space is left for air to pass into them. Iron and tin boilers may be cleaned in the same way, and should be set on the shelf resting on their sides, with the open parts outwards. They should never be covered up when they are put away. The covers ought to be kept as bright as possible, and hung on nails against the wall.

Lamps.—Place the lamp on a piece of paper on the kitchen or scullery table. Take it to pieces as much as possible, and well wipe and clean every part with a piece of soft rag. Before the lamp is filled, turn up the wick, and with a pair of lamp-scissors remove that which has been burnt, and see that the edge is level with the opening. The light from a lamp which has been thus carefully trimmed will be steady and clear.

Having done the wick, put a piece of rag over a skewer, or pointed stick, and clear away all bits of burnt wick which may have fallen into the burner. This is important, as, if any bits are left on the lamp, there will be a disagreeable smell as soon as it is lighted.

Lastly, put the lamp together, and with a piece of soft rag wipe away every particle of oil from the outside. A lamp which is kept

clean and well trimmed should never smell disagreeably. The glass should be cleaned with a brush made for that purpose, and it should be polished with a duster.

In filling the lamp great care should be taken that no oil flows over, as it will get into crevices from which it is difficult to remove it.

FOOD—SIMPLE DISHES

Soups.—In making soups, English housekeepers might well take a lesson from their French neighbours, who are experts in the art of soup-making, and in this way are able to give their families a nourishing diet at less cost than is done in England. Soup is a very economical food because there is no waste in preparing it, as all the nutriment of the materials used remains in the soup. Further, it is easily digested, all the ingredients being so thoroughly cooked.

Soups made with leguminous vegetables, such as peas, beans and lentils, are possibly as nutritious as those made with meat, since these vegetables contain a large proportion of flesh-forming material. A basin of lentil soup is an excellent substitute for a plate of meat, is almost as nourishing and often more digestible.

Stock.—Many cooks put bones and odd pieces of meat into a saucepan or jar of cold water, and let them simmer by the side of the

fire for several hours. The liquor thus obtained is called "stock," and is useful as a foundation for making many kinds of soups. Water in which a joint of meat has been boiled, after the fat has been skimmed off, does very well for this purpose.

The amount of soup required for any meal naturally varies with the size of the family; and the weight and quantities of the various substances used in the following recipes, must be altered in the proportions given; and the sizes of the vegetables used should also be considered.

Lentil Soup.—One pint of lentils, one onion, two sticks of celery or half a tea-spoonful of celery seed, one ounce of dripping, a little pepper and salt and two quarts of cold water.

Soak the lentils in cold water for twelve hours. Wash thoroughly and drain them. Melt the dripping in a saucepan, and stir the lentils into it. Add the onion, celery and water, and boil for two hours or more. When the lentils are tender, rub all through a sieve with a wooden spoon. Return it to the saucepan, re-warm and serve. If celery seed is used it should be tied in a small muslin bag.

Bone Soup.—One pound of bones, one onion, one carrot, one turnip, one stick of celery, a bunch of sweet herbs such as parsley, marjoram, thyme and mace, four peppercorns, a little salt, two table-spoonfuls of thickening and one quart of water.

Put the dripping, onion and bones into the saucepan, and fry till they are brown. Then add the cold water and a tea-spoonful of salt, and let it come to the boil. Skim it, put in the vegetables and boil for two hours. A short time before it is done add the thickening, which can be made of a table-spoonful of flour mixed with a little cold water.

Potato Soup requires one pound of potatoes, one quart of boiling water, half a pint of milk, one onion, one turnip, a little celery, one ounce of butter or dripping, pepper and salt and one table-spoonful of semolina.

Put the butter or dripping into the saucepan, add the sliced vegetables and shake them over the fire till the bottom of the saucepan looks dry and not greasy. Put in the boiling water and let it boil until all the vegetables are tender. Then rub all through a sieve and return to the saucepan which contains the hot milk. Let it come to the boil, and then

sprinkle in the semolina. As soon as it again boils up it is ready for use.

Brown Vegetable Soup.—One and a half pints of stock, one carrot, one turnip, one onion, half a parsnip, a piece of celery or a few celery seeds, a bunch of sweet herbs, two or three potatoes, one ounce of dripping and one tea-spoonful of flour to thicken.

Cut the vegetables in slices or strips. Make the dripping hot in the saucepan, and in it fry the onion until it is quite brown. Then put in the boiling stock and the rest of the vegetables, and a tea-spoonful of salt. Boil till the vegetables are tender, which will be in about twenty minutes, and then add the thickening. Boil up and serve. This soup is a cheap one, and is quickly made.

Mutton Broth. — Ingredients: one pound of neck of mutton, one fair-sized onion, two turnips, a bunch of sweet herbs, two table-spoonfuls of rice, pepper and salt and three pints of water.

Put the mutton into a saucepan containing three pints of cold water. Peel and wash the vegetables, tie the herbs in a small muslin bag, wash the rice and put it, with all the other ingredients, into the saucepan. Bring it slowly to the boil, skim it and let it

simmer gently for at least an hour. Skim off the fat before serving, and add a little minced parsley which has been previously scalded.

Fish: Boiled Cod.—After having carefully washed and dried the fish, place it in sufficient hot water to cover it. To every quart of water allow a tea-spoonful of salt. Bring it to the boil, then draw it to the side of the fire and gently simmer till it is done. Allow ten minutes to each pound and ten minutes over. Serve with plain melted butter or parsley sauce. **Salmon, turbot, mackerel** and **haddock** may be cooked in the same way.

Fried Plaice.—Wash and dry the fish. Put some flour on a plate, and roll each fish, or piece of fish, well in it on both sides. Have ready a frying-pan containing hot lard or dripping. Put in the fish, and fry for about six or seven minutes. Turn them carefully with a broad-bladed knife, and fry the other side. **Whiting, herrings** and **mackerel** are similarly cooked, but the latter should be opened lengthways, and the roe, if needed, should be cooked separately.

Baked Fresh Herrings.—Thoroughly clean the herrings, and place them head to tail in a baking-tin or pie-dish. Sprinkle over them

a little salt and pepper. Put a few thin slices of dripping on the top, and pour over two or three tea-spoonfuls of vinegar. Place them in a moderate oven, and bake for half an hour.

Fish Cake.—Ingredients: any remains of cold boiled fish, a few mashed potatoes, one egg, pepper, flour and dripping.

Remove the fish from the bones, mince it and mix it with the mashed potatoes, adding pepper and salt to taste. Beat up the egg and add this also. Make the mixture into thin cakes, dip them into flour and fry them until they are nicely browned.

Fried Beefsteak.—Steak is best grilled; but to fry it, put into the frying-pan a little dripping or finely-chopped beef-suet. When the fat is quite hot, put in the steak and let it fry quickly, but do not turn it until one side is quite brown. Be careful to insert the fork into the fat part only. Just before dishing up, sprinkle with a little pepper and salt, and serve on a hot dish with the gravy around it.

Grilled Mutton-Chop.—Rub the bars of the gridiron with a little fat, and place it over a clear, bright fire. Set the chop on it, and allow it to cook quickly. Turn the chop six or seven

times, but be careful to insert the fork into the fat only, if you do not possess a small pair of tongs. Just before taking it up, sprinkle it with pepper and spread a little butter over it.

Fried Liver and Bacon.—Fry some slices of fat bacon until they are nicely browned. Have ready a hot dish, and place the bacon on it, leaving in the frying-pan the fat which has run out of it. Well wash and dry the liver, cut it into thin slices, sprinkle them with pepper and salt, dredge them with flour and place them in the hot bacon fat in the frying-pan. Cook the liver for ten minutes, turning it once, and then lay it on the dish with the bacon. Mix a tea-spoonful of flour, in three parts of a tea-cup of cold water, and stir it into the frying-pan. Let it boil and then pour it round the liver and bacon.

Stewed Beefsteak. — Put into a saucepan a small piece of dripping or finely-chopped suet, and make it quite hot. Roll the steak in seasoned flour, *i,e.*, a table-spoonful of flour and a tea-spoonful each of pepper and salt, and fry it a little on both sides. Pour into the saucepan three-quarters of a pint of water. Bring it to the boil, and then simmer gently for one hour and a half. Five minutes before

dishing up, add a dessert-spoonful of semolina. A couple of carrots and an onion, cut into slices and stewed with the steak, are considered by most cooks as a decided improvement.

Irish Stew. — Ingredients: two pounds of mutton, three pounds of potatoes, three or four fair-sized onions, pepper and salt to taste and a pint and a half of water.

Peel and wash the vegetables and cut them into slices; and cut the meat also into suitable pieces. Season the whole with pepper and salt, and lay it in the saucepan in alternate layers of meat and vegetables. Add the cold water, close the lid of the saucepan and simmer gently for at least an hour.

Beef and Kidney Pudding.—For the crust take one pound of flour, six ounces of beef-suet, one tea-spoonful of baking-powder, a pinch of salt, and cold water to mix with the flour. Then take one pound of beefsteak, two or more ounces of bullock's kidney, one table-spoonful of flour, one tea-spoonful of salt, half a tea-spoonful of pepper and a little boiling water for the meat.

In making this pudding get the meat ready first, as the crust should not stand long after is made. Cut the beef and the kidney into newhat square pieces, and mix them with

the seasoned flour; and after pouring boiling water over them in a dish, set the whole aside until the paste is ready. Make the paste in the usual way, and having rolled it out, cut out a piece the size of the top of the basin in which the pudding is to be boiled. With the rest of the paste line the inside of the basin and put in the meat. Then wet the top edge of the lining, put on the top, and after flouring the crust, wrap up the basin in a cloth. The pudding may then be either steamed or boiled, and will take from two to four hours, depending on the quality of the meat.

The various methods of cooking joints of meat, with the advantages and disadvantages of each, have been already referred to in the chapters on cooking. A few only of those in common use are referred to here.

Baked Leg of Mutton.—The first thing to be done is to well wipe the joint with a clean damp cloth. Have ready a dripping-pan of sufficient size, and pour into it a tea-cupful of cold water. Put a wire meat-stand in the centre of the pan, and on this place the leg of mutton.

Then place the pan in a hot oven for ten minutes, after which either cool down the oven by means of the dampers, or move the

pan to a lower shelf. Let it cook gently until it is done, being careful to take it out of the oven and to baste it frequently, turning it and changing its position when necessary. Allow a quarter of an hour to each pound, and a quarter of an hour over. A short time before it is done, dredge it with flour, well baste it, and return it to the oven. This will give it a brown appearance.

To make the gravy for serving with it, pour all fat out of the dripping-pan, dredge into it a little flour and add a tea-cup of hot water or stock. Boil this in the dripping-pan for a few minutes, stirring well all the time. Pour a little gravy around the joint, and send the rest to table in a tureen.

Other joints of mutton, such as the loin and shoulder, as well as joints of beef, are cooked in the same way. Veal and pork require twenty minutes to the pound and twenty minutes over.

Roast Sirloin of Beef.—Have ready a good clear fire. Hook the joint on the roasting-jack, with the thick end uppermost. Place it quite near to the fire for about seven or eight minutes, then draw it some distance away, dredge with a little flour, and baste very frequently till it is done. Allow a quarter of an

hour to each pound, and a quarter of an hour over. Make the gravy in the same way as for Baked Leg of Mutton.

Boiled Neck of Mutton.—Having trimmed and wiped the joint, plunge it into a saucepan containing sufficient boiling water to cover it. Let it boil quickly for about five minutes. Remove the scum which rises to the top of the water, draw the saucepan to the side of the fire, and let it simmer gently till the meat is done. Allow twenty minutes to each pound.

Boiled mutton should be served with mashed turnips; and a little of the liquor in which it has been boiled may be poured round it in the dish.

WARMED COLD MEAT

As a hot meal is more satisfying than a cold one, and as a rule is more digestible, it is very important that every housekeeper should know the best way of warming up the remains of cold joints. Meat that has been already cooked does not require cooking again; it simply requires to be made hot in a way that will prevent its being rendered dry and hard. In the re-warming of meat, vegetables and flavourings are largely used. By this means

the odds and ends of joints are economically consumed, and at the same time made more palatable than they otherwise would be. If cold meat be put into hot water or gravy it becomes hard and more or less indigestible; so it should be placed in cold water or gravy, and both should be gradually warmed together.

Hashed Mutton.—Ingredients: the remains of cold roast or baked mutton, one onion, one turnip, six peppercorns, six whole allspice, two ounces of dripping, a table-spoonful of flour and salt to taste.

Cut the meat carefully off the bones, chop them and put them into a saucepan with sufficient cold water to cover them. Add the pepper, spice and turnips, and simmer for one hour. Cut the onion into slices and fry it in the dripping till it is brown. Then add a table-spoonful of flour and fry that also till it is brown. Add these to the bones and boil the whole. Then set it to cool, skim off all fat, lay in the meat, and when the whole is re-heated it is ready to serve. Slices of toasted bread may be arranged round the edge of the dish just before it is sent to table.

Cold Beef re-warmed.—Cut some slices of cold beef. Dip each slice into a mixture of flour, pepper and salt. Have ready a pie-

dish, into which pour some cold gravy from which all fat has been skimmed. Put the meat into it in even layers, cover it with a tin or plate, and put it into the oven. When the gravy begins to simmer the meat is done. If you have no gravy a little cold water does very well.

Minced Beef.—Mix a table-spoonful of flour with half a pint of cold water. Add to it an onion cut into small pieces and fried brown, a bunch of finely-chopped sweet herbs, and pepper and salt to taste. Boil these for a few minutes. Chop up the meat as finely as you can. Have ready a greased pie-dish, and lay in it alternate layers of the minced meat and mashed potatoes. Pour over the gravy made as above, and keep a layer of potatoes for the top. Bake half an hour.

Potato Pie.—Mince finely any remains of cold meat. Add some stale bread-crumbs and a few sweet herbs which have been scalded and finely chopped. Mix all well together with pepper and salt to taste, place in a greased pie-dish and pour over a little gravy. Have ready some mashed potatoes, and having put a thick layer on the top, bake for half an hour. When it is done the top should be of a light brown colour.

Toad-in-the-Hole.—Ingredients: one pint of milk, six table-spoonfuls of flour, one egg, half a tea-spoonful of baking-powder, half a pound of cold meat and a little pepper and salt. Grease a baking-tin or pie-dish with a little dripping. Put in the cold meat cut into pieces, and sprinkle over it pepper and salt to taste. Then put the flour, baking-powder, and a pinch of salt into a basin and mix them together. Stir in the egg, and add the milk by degrees, using a wooden spoon, till you have a nice smooth batter. Pour this on to the meat, and bake in a moderate oven for three-quarters of an hour.

Rissoles.—Ingredients: two table-spoonfuls of chopped meat, two of bread-crumbs, and one of chopped parsley, one tea-spoonful of dried herbs, salt and pepper and the yolk of one egg.

Chop the meat finely or mince it in a mincing-machine. Wash the parsley and chop it. Rub the dried herbs through a sieve, put in the pepper and salt and mix all well together. Break the egg on a plate, and separate the yolk from the white. Add this to the mixture, and if there is not sufficient moisture, add a little water or stock.

When all is mixed, put it on a plate and make it smooth and flat with a knife. Cut it into equal portions. Brush each piece over with egg and roll it in bread-crumbs or flour. Bake in the oven, or fry in a little dripping.

VEGETABLES

Boiled Potatoes: *Old ones.*—Well wash the potatoes. Peel them and wash again, but do not let them stand in cold water. They should be placed in a saucepan of *boiling* water, to which a little salt has been added, and should be kept boiling until they are done. Then drain off the water and let the saucepan stand by the fire for a few minutes with the lid partly off, so that the potatoes may dry. The best cooks no longer use cold water, and science says they are right.

Boiled Potatoes: *New ones.*—Well scrub the potatoes in a pail of cold water. Scrape them with a sharp knife, and thoroughly wash in two more waters. Have ready a saucepan of boiling water and put them into it. Add a small tea-spoonful of salt, and a sprig of green mint. Boil gently, with the lid on the saucepan, till done. Strain away all the water, and serve.

Boiled Cabbages. — Strip off the outside leaves of the cabbage, cut it into quarters, and let it lie in salt and water for half an hour. Change it into another water. Well wash it, and carefully examine each leaf to see that no slugs or worms are left, then set it to drain for a few minutes. Plunge it into a saucepan of boiling water, into which has been previously put a table-spoonful of salt, and a piece of soda about the size of a wood-nut. Boil, with the lid off the saucepan, until it is tender.

Mashed Turnips. — Wash and peel the turnips, and after having cut them into quarters, put them into a saucepan of boiling water. Add a tea-spoonful of salt, and boil them for three-quarters of an hour. Then put them into a colander, and, with a small plate, squeeze out all the water, and put them back into the dry saucepan, and add a little butter and pepper. Shake them over the fire and beat with a fork till they are quite mashed and hot. Put them into a vegetable-dish, smooth over with a fork, and serve.

Spinach.—Wash the spinach well in several waters, so as to remove from it all grit. Press it down closely into a saucepan without water, sprinkle it with salt, and let it cook in its own

juice until it is tender. Then turn it out of the saucepan on a chopping-board, and chop it finely, adding a little butter and pepper. Return it to the saucepan, and when it is re-heated it is ready to serve.

French Beans.—With a sharp knife cut off the two ends and the stringy sides of the beans. Slice each bean into three or four narrow strips, and boil in salt and water, to which a small piece of soda has been added to improve the colour. Keep the lid off the saucepan while they are cooking, and drain in the colander before serving.

Green Peas.—Shell the peas, wash them in cold salt and water. Skim off all that float, and put the rest into boiling water. Add a little salt and soda, and boil with the lid off the saucepan until they are tender. Add a little butter and pepper just before serving.

Boiled Rice.—Wash a tea-cupful of rice and tie it loosely in a pudding-cloth. Put it into a saucepan with sufficient cold water to well cover it, and boil for one hour. Untie the cloth and turn the rice into a vegetable-dish. This is a useful dish when green vegetables are scarce.

PUDDINGS AND CAKES

The making of puddings and cakes is a matter in which girls can render great assistance to their mothers at home. There are so many things to get in readiness before puddings and cakes are made, that a little assistance from a willing hand is invaluable in saving time. And while the young assistant is chopping suet, drying currants, peeling apples, &c., she can be watching the operations of the more experienced cook, and laying by stores of knowledge for future use.

In order to ensure that pastry shall be good, it is essential that everything required should be ready and clean, as the nicest pudding or tart or cake may be easily spoiled in the cooking. If a pudding is to be boiled, the saucepan should be on the fire, and the water likely to boil by the time it is wanted. If pastry is to be baked, the oven should be cleaned out and the fire made up before you begin, so that the oven may be hot when the pastry is ready to go into it.

The following facts are worth remembering:—

A breakfast-cupful of flour weighs about half a pound.

A tea-cupful weighs a quarter of a pound.

A table-spoonful is just one ounce.

Suet Crust for Boiled Puddings.—To three-quarters of a pound of flour allow a quarter of a pound of finely-chopped suet, half a tea-spoonful of baking-powder and a pinch of salt. Then mix the dry substances in a basin and make them into a stiff paste with cold water. If you are able to roll it out easily on your paste-board, you will know that it is of the right consistency. If it sticks, use a little flour.

Crust for Meat or Fruit Pies.—To every pound of flour allow half a pound or a little less of dripping, lard or butter, three-quarters of a tea-spoonful of baking-powder and a pinch of salt.

Mix the dry substances well together, rub in the dripping, and when the mixture looks like coarse oatmeal, mix it into stiff paste with a little cold water. Have ready a floured paste-board; roll the paste lightly and it is ready for use. Paste that contains baking-powder should be cooked as soon as it is made.

Bread Pudding. — Put into a basin some pieces of stale bread, and pour over them a

pint of hot milk. Cover with a plate, and let it stand till the bread is well soaked. Then beat it up with a fork and add two table-spoonfuls of moist sugar, two well-beaten eggs, half a tea-spoonful of essence of lemon and a few currants. Prepare a greased pie-dish. Put into the bottom of it three table-spoonfuls of jam (raspberry does best) and pour in the mixture. Spread a few thin slices of butter on the top and bake for one hour.

Jam Roly Pudding. — Roll out on a paste-board, to about the thickness of half an inch, some suet crust. Spread over it with a knife some jam. Wet the edges, and carefully roll it over and over. Secure the ends, and put it into a pudding-cloth which has been dipped into hot water and well floured, so as to prevent the pudding from sticking. Fasten it up safely at each end with a pudding-string or tape, and a couple of safety-pins in the middle. Put it into a saucepan of boiling water and boil for one and a half hours. Treacle may be used instead of jam; but in that case sprinkle over the treacle a few bread crumbs or a table-spoonful of semolina before rolling up the pudding.

Apple Tart.—Peel, core and cut into thin slices sufficient apples to well fill a pie-dish.

Sprinkle over them two table-spoonfuls of moist sugar, add a very little cold water and three or four cloves, if this flavour is desired. Make some paste according to the recipe given, place a border of it round the inside edge of the dish, wet the edges of it and cover all over with paste. Cut the edges evenly, and bake in a rather quick oven.

Rice Pudding. — Well wash in cold water half a tea-cupful of rice. Put it into a greased pie-dish, and add to it two table-spoonfuls of moist sugar, a little grated lemon peel and a pint of cold milk. Stir these together, and then lay on the top a few thin slices of butter or a little finely-chopped suet. Grate over all a little nutmeg, and bake in a slow oven until the rice is quite done. An egg beaten up with the milk is an improvement.

A Simple Custard.—Beat up in a pie-dish two eggs, two dessert-spoonfuls of sugar and a few drops of lemon or vanilla flavouring. Add three-quarters of a pint of milk. Beat all well together with a fork, and then bake in a slow oven.

Rock Cakes.—Mix in a basin one pound of flour, about six ounces of lard or dripping rubbed in, one tea-spoonful of baking-powder, half a pound of moist sugar, half a pound of

well-washed currants, one ounce of chopped peel, and a little nutmeg. Beat two eggs into a tea-cupful of new milk; mix all the above ingredients with it; then drop small pieces on a flat tin or on a clean oven-plate, and bake at once.

Sultana Cake.—Two breakfast-cupfuls of flour, one large tea-spoonful of baking-powder, one tea-cupful of sugar, one pound of sultanas, a little grated lemon-peel, a quarter pound of lard, butter or dripping, three eggs and half a pint of milk.

Mix all the dry ingredients well together. Beat the eggs well in a cup, add the milk to them, and mix the whole lightly together with a knife. Put into a well-greased cake-tin and bake for one and a half hours.

RULES FOR HEALTH

No person's health is entirely under his own control. He must live, and he must live where he can find his food; and this brings him into contact with all sorts and conditions of climate and soil. Some of these suit him and some do not, and as a result we get mankind in all parts of the world suffering from

all kinds of complaints, as is proved by the fact that doctors are to be found everywhere. Soil and weather which suit one may not suit another; but his family ties, or his business affairs, or both, may compel him to put up with them whether they agree with him or not.

As a matter of fact, Nature, with its storms and floods, its droughts and famines, its wet and cold, its germs of disease and beasts of prey, its fevers and its accidents, seems to be always doing its best to kill us off from birth to death. To stand up against these enemies one must not only have a strong constitution, but he must take care of it.

His constitution, however, does not depend on himself, but largely on the constitution of his parents; so that, whether we are strong or weak, healthy or ill, we are what we are through circumstances over which we have little or no control.

Of all animals, big or small, children when born are probably the most helpless. They can neither feed themselves nor clothe themselves; they must stay where they are placed, and they are quite unable to defend themselves even from the smallest insect. And yet in spite of all this, parental attention and

a natural determination of all life to survive, enable the helpless babe to become in time the monarch of all it surveys.

All children, of course, are not equally strong, because some inherit weak constitutions from their parents; but with proper care and attention it frequently happens that children outgrow their early weakness, and develop into healthy, strong men and women. On the other hand, though the child may be born with a good constitution, yet if it is brought up in unsuitable surroundings, its health is bound to be impaired.

If a child is to grow up healthy and continue so through life, there are certain things necessary to its well-being. These must be attended to, first by those who take care of it during its early years, and afterwards by itself, when it is able to provide for its own wants.

Food and air are necessary to the existence of every human being, and, except in very hot countries, clothing is necessary also. But in order that a person may be healthy and strong, it is also essential that the food should be of the right kind, taken in proper quantities and at regular times. The air must be fresh, and not poisoned by hurtful

matters. The clothing also must be suitable and sufficient.

In addition to these things, the body will require to be cleansed, exercised and sheltered from extreme cold and heat. Further than this, if every organ of the body is to be able to perform its functions properly and effectively, it will be necessary to cultivate those habits which tend to promote the healthy and free use of all parts, and to avoid other habits which would hinder or impair it.

All these considerations show that a great number of points have to be observed if our bodies are to go on as we should wish them to do. The most important of these points may be summed up in a few general rules for health, which apply to almost all. These rules, or laws of health, naturally divide themselves into three groups :—

(1.) Rules concerning the body with regard to its food, its nourishment and temperature.

(2.) Rules concerning our family surroundings, our homes and our neighbourhoods.

(3.) Rules concerning habits to be formed or avoided.

Food.—In order that our bodies may live and grow, and all our organs be able to do

their proper work, it is necessary that we should have food. The object of taking food is to build up the various tissues of our body and to keep it at its proper temperature. Some foods fulfil one of these purposes best, and some the other; and, as every one knows, this is the main reason why we make use of a mixed diet instead of living on one kind of food only. All this, however, has been referred to in Book V., so here we need not trouble ourselves much as to what constitutes suitable food.

Milk, however, should form a considerable part of the diet of young children; and those who take little bodily exercise should eat much less food than those whose muscles are much used in work or bodily exercise of any kind.

The principal rules to be observed with regard to food are:—

Regularity.—Our meals should be taken as nearly as possible about the same time each day. Though it is well to vary our dishes, it is desirable that we should take food of the same nutritive value, and in about the same quantity, as our daily meals come round. We are creatures of habit in all ways; and as a machine works better and lasts longer when

worked methodically, so it is of great importance to our health that the process of digestion should go on in a regular way.

As a rule, nothing should be eaten between meals. Late suppers, too, are likely to give trouble. If a hearty meal is taken in the evening, it should be some hours before going to bed.

Eating.—Meals should not be eaten quickly. It is very desirable that our food should be well masticated, and this can only be done if sufficient time be allowed. The food we eat must enter the blood, if the tissues of our bodies are to be daily rebuilt and the temperature maintained. This entrance of the food into the blood takes place in the stomach and intestines, which are specially fitted to carry out the particular part of the work that falls to the lot of each.

In the mouth the food is cut up and ground by the teeth, which are exactly adapted for this purpose. If this is imperfectly done, some of the food will enter the stomach in portions too large and compact for the gastric juice to properly act upon it; and this will not only hinder the work of digestion, but also cause pain and impair the digestive organs.

Besides the work of the teeth, three pairs of glands secrete saliva and pour it into the mouth. This fluid mixes with the food and acts on the starchy matters, converting them into sugar, which is readily dissolved and absorbed into the blood. If this is not done during the mastication of food in the mouth, extra work is thrown on other organs later on.

From all this, the necessity of eating slowly, and of thoroughly masticating food, is plainly seen. Good digestion generally goes hand in hand with good health; but bad digestion is the source of an endless number of ailments and troubles.

During meals but little drink should be taken; neither should food or drink be taken very hot or very cold. Both are injurious to the stomach and other delicate organs of digestion.

After meals it is well to rest for a time, and violent exercise must then be very carefully avoided. Care should also be taken not to overload the stomach by taking more food at a time than we can readily digest.

This is an important matter, because, if more work is thrown on the stomach than it can accomplish, not merely is much of the

nutriment contained in the food wasted; but the stomach itself is injured. Even if we feel no ill effect at the time, we are almost sure to do so later on in life.

Exercise. — That our bodies may be well developed, healthy and strong, it is absolutely necessary to give them sufficient exercise. One of the best kinds of exercise, as well as the one that comes most easily to nearly every one, is walking. Muscles in all parts of the body are called into play in walking, and it can also generally be done in fresh air, which is a great advantage.

Many amusements, such as skipping and jumping, swimming and rowing, are excellent physical exercises. Dumb-bells, if carefully used, do much to strengthen and develop the muscles, and to deepen the chest, thus adding greatly to the chances of health. They also tend to improve the shape and carriage of the body, which all must see are matters of great importance. Dumb-bells, however, at times overstrain and do harm through being too heavy. For the physical exercise of strong men in the army, dumb-bells do not exceed five pounds in weight.

The value of exercise is greatly increased if it can be taken regularly. Those people,

especially, who have to spend a great deal of their time in-doors, should every day make an effort to get a good walk in the fresh air. Too much confinement tends to make a person depressed and irritable, as well as to produce a low and weak physical condition.

Such persons are more liable to fall victims to maladies and diseases than well-exercised and healthy people. A good sharp walk has a wonderful effect on the spirits, and the time given to it is often more than made up by the fresh vigour with which work is recommenced.

Rest.—One of the essentials to good health is a due amount of rest. Young people require more sleep than old people, for which reason they should go earlier to bed. But the experience of all ages teaches that sleep in the early part of the night, is far more beneficial than a much greater amount in the morning.

Here again regularity is of vast importance. Have a fixed time for going to bed, and let it be as early as the affairs of the family will permit. Besides the actual benefit to health derived from the early sleep, a considerable saving in the cost of fuel and light is also made, which is a matter of consideration to

households of limited means. Better by far use the light of the sun in the morning, than waste it and then pay for gas in the evening.

Beyond this, many temptations are removed from young people; for loose habits, and too great a love of excitement and pleasure, have their origin in late hours. To many people a little rest in the daytime is absolutely necessary. This should also be taken, if possible, at a regular time and extend for a stated period, otherwise habits of idleness may be contracted.

When within the means of a person, an occasional holiday from home, even though short, is of great benefit. Not only is the bodily health improved by a change to other air and surroundings; but the mind, which regulates the body, is stimulated and benefited by new scenes and ideas.

Clothing.—The body cannot continue long in health unless it is kept at a proper temperature. In this country the climate is subject to so many changes, often following each other in rapid succession, that unless precautions are taken, we are pretty sure to suffer from them. Our rooms can generally be kept warm in cold weather by regulating our fires. But the danger comes in when we

go out into the cold air or possibly into the rain or snow. Then our great safeguard is in clothing.

The heat of our bodies is really kept up from the blood within them; but the heat rapidly passes away when the surrounding air is cold. Flannel should always be worn next the skin summer and winter, because it is a bad conductor of heat.

In winter, flannel prevents the heat of our bodies from passing too rapidly away, whilst in summer it does not allow the outside heat to pass too freely into them. It also absorbs the perspiration. When men and boys play cricket, or when they go boating in very hot weather, they generally wear flannel, and for the reason just stated.

Outside clothing should not fit so tightly as to impede freedom of movement. That for ordinary wear will of course vary with the seasons; but coats and jackets and shawls, &c., should be provided to balance the fickleness of our climate. Where means will allow, two such garments should be provided, one stout and warm for very cold days, and a lighter one for the milder days in winter, spring and autumn.

Warmth and comfort should not be sacri-

ficed for appearance and fashion. All should look as nice as they can, but considerations of health should come first. In olden time it was the fashion for little girls to wear low-necked dresses and short sleeves. As a result of this, consumption must have been often encouraged which, in after years, not only proved fatal to the individuals themselves, but which predisposed their children to consumption as well.

To check this we must have the feet well shod. Boots or shoes made of leather, with soles stout enough to keep out the damp, are positively necessary to all but the hardiest. They should always be of sufficient size to be comfortable, and to allow of the wearing of warm stockings or socks. Colds, sore throats, chilblains and many other ailments are often the result of having cold or wet feet. Whenever the boots are at all damp, they should be changed as soon as possible.

Cleanliness.—The discomfort of being dirty, either in our persons or clothing, is enough to make any decent person unhappy. But this is as nothing compared to the effect of dirt on health. It is now well known that many diseases, such as cholera and smallpox, are produced by little germs, so small in them-

selves that they cannot be seen without the aid of a microscope, and some of them not even then.

These germs always flourish best where there is dirt. Our clothes, our bodies, our houses and our neighbourhoods must be constantly cleansed, or we are pretty sure to be attacked when the weather is suitable.

One great protection against illness is good fresh air, in our houses as well as outside. But the best air is soon made foul if dirt is allowed to accumulate near our dwellings. Hence the necessity of dust-bins being frequently emptied, of disinfectants being freely used, of our streets being often swept, and of the gutters being well washed and broomed.

Our houses should be cleaned as often as necessary, and carefully ventilated. As much of our clothing as possible should be of washing material, and it should be frequently changed and washed. Our outer garments should be frequently shaken and brushed, so that no germs may have a quiet time to grow and become injurious.

But above all things our bodies should be ept clean. Few people know how much l-health they owe to a dirty skin. This

injurious dirt is not always to be plainly seen; but it may be there and doing its mischief, although it may not be bad enough to offend the eye.

The parts of our bodies that are uncovered, such as our hands, our faces and necks, are constantly coming into contact with dirty air and outside matters, and of course require frequent washing. But the other parts that are covered by our clothes, and which are thus protected to a great extent from outside dirt, need washing also. Through the pores of the skin some of the impurities of the blood pass out. If the perspiration be not removed, it decays and becomes offensive, in addition to blocking up the pores and preventing the impurities from leaving the blood.

Habits. — Young people who enjoy good health, who can see well, hear well, and use their limbs freely and easily, are apt to take all these blessings as a matter of course. They see some old people slow and stiff; others nearly blind and deaf; and if they think anything at all about it, they regard it as perfectly natural.

And so no doubt it is; but many of these infirmities come on some people much earlier than they ought to do, simply because they

have not taken proper care to form good habits in their youth.

The Sight.—The eyes, like other parts of the body, have work to do, and they therefore, like other things, get out of order and wear out. The machinery whereby the eye can see things large and small, things close by and things far off, is very fine and delicate. All the more need, therefore, have we to be careful over its use. Some eyes, like some arms, are naturally weak, and whilst young they should be helped by suitable glasses.

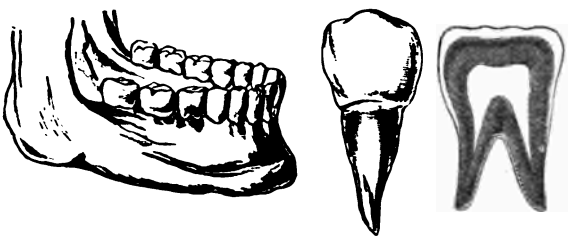
Some persons are short-sighted and some long; but whatever may be wrong should be attended to in youth, that we may get into the habit of doing the right thing in good time.

Reading small print, reading in an unsteady light, such as that of a railway train, and reading long at a time, are sure to cause trouble. Similarly very fine sewing is bound to strain the muscles which regulate the lens of the eye.

Teeth.—From early times children should form the habit of attending to their teeth. Like the eyes, the teeth vary in different people; but whether they are good or bad, strong or weak, they can only become worse

by not being kept clean. Uncleaned teeth, in time cause indigestion; and bad digestion causes bad nutrition of all parts of the body.

As all know, bad mastication leads to bad digestion, and bad teeth means bad mastication; therefore, for the proper grinding up of the food, the teeth should be preserved as long as possible.



The outsides of the teeth are the hardest parts of the body. But hard things, like glass and enamel, crack both with heat and cold. Therefore our teeth should not come into contact with food or drink which is either very hot or very cold.

In addition, food kept exposed to the air decays, and if parts of our food remain either in cracks or between the teeth, they are sure to decay. But, when food decays, carbonic and other acids are formed; and these, if they

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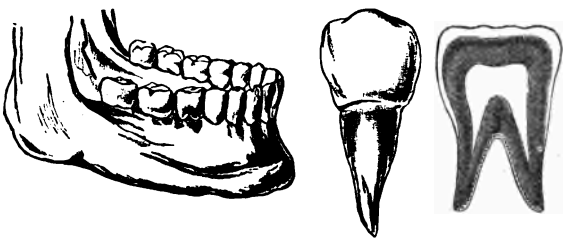

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are formed between the teeth, dissolve the enamel. As a result, people who do not clean their teeth are bound to have them decay.

And besides all this mischief and the extremely bad appearance of dirty teeth, there is the offensive smell which proceeds from decaying matter. As a result, the breath of a person who has dirty teeth is generally very disagreeable.

There can be no doubt that many a good set of teeth has been spoiled by using preparations sold as tooth-powders. Camphorated chalk has been a great mischief-maker in this way. Chalk, ordinary school chalk, ground up with, say, a rolling-pin, is good; but camphor is certainly bad. It soaks into the teeth and makes them brittle; and the same no doubt takes place with many of the other so-called tooth-powders and pastes. The simpler the thing the better. A good brush and plenty of water, used with a little chalk or salt, will not leave much to be desired.

Nails.—Dirty nails, except when a person is doing dirty work, are a sign of a dirty person. Those who have to deal with matters which stain the skin and nails, cannot be expected to have unstained hands; but things which are stained need not be dirty. Nothing so

much marks bad breeding as habitually dirty nails. Therefore, after washing the hands they should always be cleaned.

The nails, like most other parts of the body, are always growing, and therefore, like our hair, should be now and then cut. Whatever is used for cutting them, whether a knife or scissors, should be sharp. The shorter the nails the less the dirt they hold, and the less the dirt the less the chance of carrying about in it germs and seeds of disease.

Fashions, as far as they concern health, were fully dealt with in Book IV. As was there stated, "the look of a thing" seems to have taken the place of "the comfort of a thing." As long as the free motion of all the muscles of a body, and the natural position of all the internal organs of a body are not interfered with, fashions do not much interfere with health. The muscles, however, should have free room to move, and the blood-vessels should not be crushed by tight boots or garters. Tight lacing should not be allowed to squeeze the lungs and other organs out of their places, and the chest and neck should not be unduly exposed to the cold and winds of winter.

A hat or bonnet which may suit one person

may not suit another. A soil that suits geraniums will not suit ferns. The weather which suits ducks and frogs does not suit strawberries, or children at a school treat; and so there can be no rules for health which can suit every one. But with the majority of people, the following short "Rules for Health" will be found both suitable and useful:—

Live plainly, and take your meals regularly.

Eat slowly, and well masticate your food.

Rest a short time after meals.

Take plenty of exercise in the open air.

Do not strain either the mind or the body.

Take a proper amount of rest and sleep.

Let comfort regulate your clothes and not fashion.

Keep your skin clean.

Keep your teeth clean.

Keep your nails clean.

Keep your house and surroundings clean.

Do not worry, but make the best of everything.

COMMON AILMENTS AND THEIR REMEDIES

"A stitch in time saves nine" is a well-known proverb, and so is that which says "Small beginnings often have great endings." Both these proverbs apply to many of the affairs of daily life, and to none more strongly than to simple ailments of the body.

To deal with accidents, which might be somewhat serious if not attended to at once by a medical man, a society named the St. John's Ambulance Association was a few years since formed in London. Under its management lectures are given in most towns and villages. These lectures are attended by many persons of both sexes and of all ages; and as those who attend not only listen but actually take part in helping the injured, there is generally some one near at hand to assist those who meet with an accident.

In addition to these lectures on "First Aid to the Injured," the Association provides another course of lectures on nursing the sick. By this means much useful information is being spread among the people, and, as no one

knows what may happen to himself, nor what help he may be able to render to others, all those who can afford the time should attend these lectures, and help to do practically that which must make them more useful to those among whom they live.

A cold is a very common ailment, and may be often nipped in the bud by the use of very simple remedies. But a neglected cold is a much more serious matter, and often the forerunner of serious trouble. Doctors are necessary but expensive remedies, and sometimes, in country places, not easily secured at the moment they are wanted.

On this account it is wise to learn what is best to be done in cases of illness, where timely aid is of great value, and where a little careful treatment and simple remedy is all that is required.

As remedies are often required at a moment's notice, there should be in every house a medicine chest or drawer, in which all that may be wanted should be kept. It should be put in a convenient place, out of the reach of children, and should always be returned to its place after being used.

It should contain, where practicable, a pot of vaseline, a small bottle of sweet nitre, some

sticking-plaster; a bottle of carron-oil, some camphorated oil, a little sal-volatile, a bottle of liquorice-powder, some powdered borax and boracic acid, a small bottle of ammonia, a jar of crushed linseed, a sheet of cotton-wadding, and a bundle of soft linen.

Of course many of these things may lie by and never be required. If so, so much the better for the household; but it is well to be prepared for an emergency, as accidents happen when we least expect them.

Colds. — We constantly hear of people "catching cold." There is no doubt that some colds are infectious, and if, when persons are suffering from this malady, they would be more cautious in their relations with others, we should not so often hear of a cold "going through the house." But by far the most common way in which colds are taken, is by sudden changes of temperature.

A girl, for example, may be sitting on a cold evening in a warm room. A letter has to be posted; so, without putting on a hat, or cloak, or even a little shawl round her shoulders, she runs across the road to the nearest post-box or post-office. Possibly she meets a school-fellow, and stands in the road talking to her for a time, and then runs back home to her work.

In the meantime, possibly, she has taken a chill, which on the next day develops into a cold. If remedies are at once used it may be easily cured; but if it be neglected it may lead to serious consequences. Chest complaints and consumption are often the sad results of a common ordinary cold which has been allowed to go on unchecked. Sitting in close, stuffy rooms where the air has been breathed by a number of people, is one of the surest ways of taking a cold. Such air weakens the organs of the chest and predisposes to cold.

Sitting for any length of time in a draught is another way in which colds are often caught. As soon as one feels that one has caught a cold, a little extra clothing should be put on, and we should keep indoors if possible. At bed-time it is well to take a lemon, and squeeze the juice from it into a tumbler, adding a dessert-spoonful of honey or some sugar. Then filling it up with hot water, the mixture should be drunk while it is still hot.

Warm drinks and twenty-four hours in bed are among the very best remedies for a cold; but unfortunately many people cannot manage to do this. The important considerations in treating a cold are to induce perspiration and

to avoid chill; therefore bed is the safest place during treatment.

Putting the feet into hot mustard and water at bed-time is a good old-fashioned remedy, and so is a basin of hot gruel. A tea-spoonful of sweet nitre, taken in a wine-glass of water, often cures a cold; but it is not a safe remedy for those who are not able to remain in bed in the morning.

On taking any of these remedies, put an extra blanket on the bed, and when you get uncomfortably hot, do not throw off the bed-clothes or get out of bed whilst in a state of perspiration. If the cold is on the chest, drink linseed-tea, and rub the chest with camphor liniment or some good embrocation. If it is a very bad case, put on a linseed-meal poultice, using crushed linseed for the purpose; and afterwards cover the chest with a piece of cotton-wadding or flannel. Should a cold on the chest resist these remedies, no time should be lost in getting medical advice.

Sore Throat.—Sore throats are sometimes the result of cold, sometimes they are caused by breathing bad air, and sometimes they result from continual talking. If several members of a family are attacked with sore throat, the drains of the house should be examined.

A mild, aperient medicine should be given, and a cold compress put around the throat. A piece of soft, linen rag, or a small pocket-handkerchief folded into a pad about nine inches long and three inches wide, answers well for this purpose. This should be wrung out of cold or tepid water and laid on the throat. It should be completely covered with oiled silk or several layers of flannel, as it is important to prevent the escape of the vapour which is caused by the heat of the body.

This compress should be renewed every six hours till relief is obtained. A gargle of boracic acid and water, in the proportion of two tea-spoonfuls of the acid to a tumbler of warm water, is useful for cleaning and curing a sore throat. Lemon-juice and honey dissolved in water is also a soothing mixture; but perhaps the most useful gargle for a sore and relaxed throat is a solution of chlorate of potash and steel drops.

Black-currant tea also makes a useful and grateful drink for a sore-throat patient. For this, put a table-spoonful of black-currant jam into a jug, and pour over it half a pint of boiling water. Stir it well, and add a little lump-sugar if necessary. Set it to cool, and when cool strain it into a tumbler. As in the case of

a cold, if a sore throat shows signs of remaining, medical advice should be obtained.

Headache.—Headaches come from a variety of causes, and therefore require very varying treatment. In children, a headache is very often the forerunner of some more serious illness, and should be carefully watched. In grown-up people, headaches are usually bilious or nervous.

A bilious headache may often be cured by a dose of aperient medicine and a diet for some hours of milk and soda-water, or dry biscuit and toast-water. Rest and quiet sleep in a darkened room are a great help.

Nervous headaches are often the result of overwork or anxiety. Rest and freedom from worry, with plenty of fresh air and a little cheerful society, often do wonders in effecting a cure. A soft rag dipped in eau-de-cologne or lavender water, and laid on the forehead, will sometimes give relief; and bathing the forehead with vinegar and water often effects a cure. When nervous headaches are frequent, it is a sign that the system is out of order, and medical advice should be sought.

Earache.—This is generally the result of a cold or neuralgia. A small piece of cotton-wadding soaked in warm camphorated oil and

put into the ear, often gives relief. Or a few drops of warm oil may be poured into the ear. A linseed-meal poultice or a bag of hot salt laid over and around the ear is also useful. These, by warming the skin to which they are applied, draw away blood from the parts which ache, and which then become easier.

Toothache.—Decayed teeth are the most common cause of toothache. If an aching tooth be examined, a hole or crack is generally discovered by which the nerve is exposed to the food and cold. The chief cause of decay in teeth is the decay of food which has become fixed between the teeth, become acid, and injured the enamel. The enamel is hard, and, like glass, cracks with heats and cold. Hot and cold things are thus hurtful to teeth. The surest way, however, to prevent decay is to keep the teeth perfectly clean.

When a tooth aches badly, a few drops of oil of cloves poured on a bit of cotton-wadding and put into the tooth often gives relief. The application of spirits of camphor to the face is sometimes beneficial. Another remedy is to apply to the face a flannel bag filled with camomile flowers, which have been made hot in the oven or in a clean frying-pan,

When once, however, the enamel of the tooth is broken or cracked, there is no cure but to have it stopped or extracted. The nerve which supplies the teeth is the most troublesome to medical men of all the nerves; and no doubt troubles in various parts of the body are caused through the irritation of the nerve in the decayed part of the teeth.

Chilblains.—A good way to treat unbroken chilblains is to bathe them in hot water, and then well rub them with turpentine or camphor liniment. Tincture of iodine applied with a brush is a good remedy. If they are broken, a poultice may be necessary, and afterwards an application of vaseline or zinc ointment. People who are subject to chilblains should be careful to wear warm woollen stockings and gloves, and should avoid tight boots, which impede the circulation of blood in the feet.

Chapped Hands.—Few people are to be more pitied than those who have dry skins, and who therefore suffer from chapped hands in winter. And yet nothing is more easily prevented. There is no need to run into expense in buying the many patent remedies out of which large fortunes are made.

A quarter-pint of distilled water can be bought at the chemist's for a penny; and if into this two, or even one, tea-spoonful of glycerine be put, nothing more is required. A bottle of this mixture should stand on the dressing-table of every one who suffers from a dry and chappy skin. After washing and wiping, and before the skin is dry, a little of the water should be rubbed over the hands and the face. This will keep the skin perfectly soft. Glycerine by itself hardens; but a little in water is useful, where glycerine by itself is not.

Nose-Bleeding.—This should be referred to a doctor if it occurs frequently. If, however, it results from a blow, apply a sponge, wrung out of cold water, to the back of the neck and to the top of the nose. If this does not stop the bleeding, the patient should lie down on his back, and the nose be tightly pinched with a handkerchief held between the thumb and the fingers. A little powdered alum applied to the nostrils sometimes arrests the bleeding.

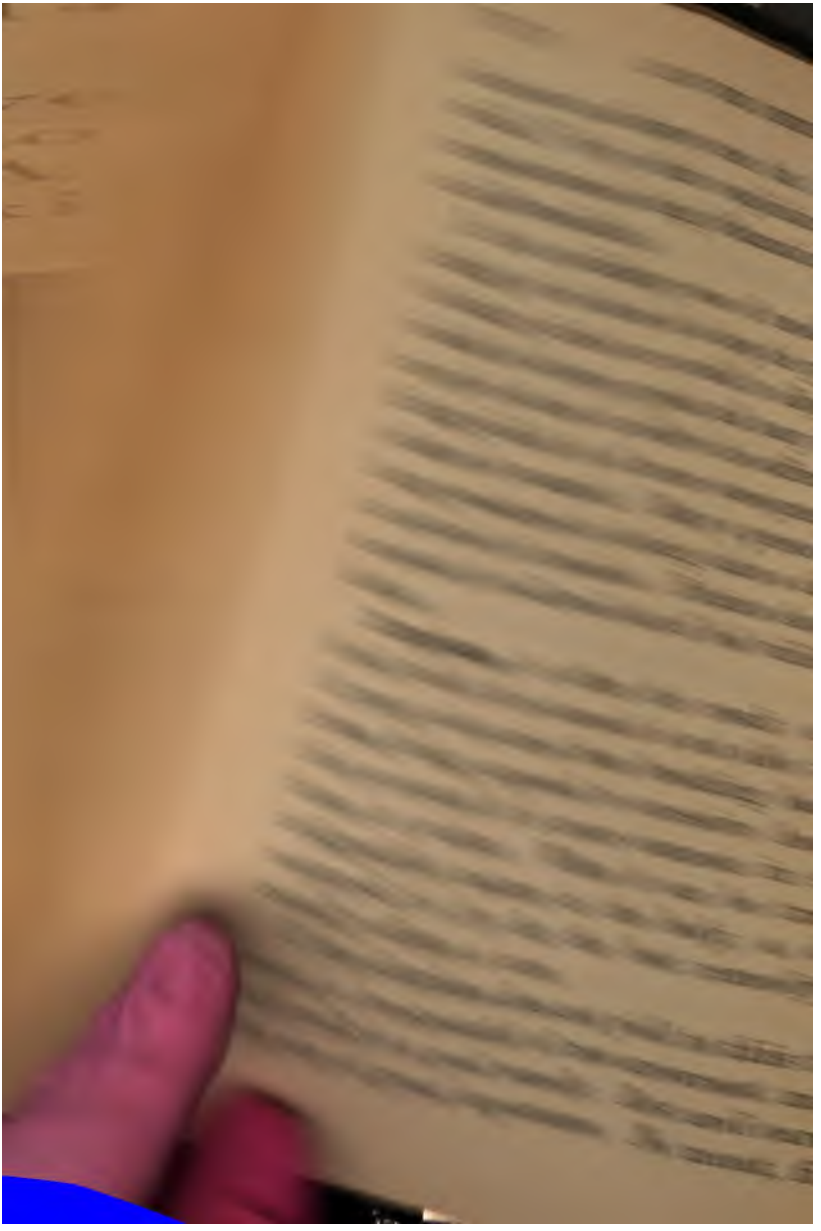
Fainting.—When a person faints the action of the heart is partly arrested, and it ceases to send a full supply of blood to the brain. The first thing to be done in a case of fainting

is to lay the patient flat on her back, so that the head is in a lower position than the heart. If this treatment does not succeed in restoring consciousness, apply a bottle of smelling-salts to the nostrils, and bathe the face with cold water, so as to drive the blood to the brain for a time.

As soon as consciousness returns, give a tea-spoonful of sal-volatile in a wine-glass of water, or a few drops of brandy in a little water. Fainting-fits are often the result of tight-lacing, but more often of nervous excitement. Sudden fright or even joy, prolonged grief, a fall or any sudden blow on the skull sometimes so upsets the nervous system, as to cause a person to faint, and the brain to become inactive.

Measles.—This is a very infectious disease, and is most common among young children. It usually begins with a cold in the head, running at the eyes, feverishness and headache. In about two or three days a red rash appears on the face and chest, and eventually covers the whole body.

In a case of measles the face sometimes becomes swollen and the eyes almost closed. The throat is often sore, and swallowing is difficult. The rash soon subsides, but this



vegetables or fruit should on any account be eaten. Milk, arrowroot or corn-flour is an excellent diet, as is also rice well boiled in milk.

Whooping-Cough.—This commences like an ordinary cough, which gets gradually worse until the loud whooping noise is heard which gives its name to the disease. In the first stages of whooping-cough the patient should be kept in the house in a warm room, and simple syrups should be given.

The chest and the back between the shoulders should be rubbed with camphorated oil or some simple embrocation, and covered with flannel. It is a good plan to suspend a piece of flannel or cotton-wool from the neck with a piece of tape.

When the more serious part of the disease has gone, which is often long before the whooping has ceased, fresh air and change of air are the best remedies. A change into the country or to the seaside often does wonders.

Mumps.—This is a swelling of those glands of the throat which lie just beneath the ear. The throat and neck become very much swollen, and exceedingly painful and tender to the touch. Feverishness and headache come on, sometimes accompanied by sickness,

The patient need not lie in bed, but should have a layer of warm cotton-wool wrapped round the swollen part, and be kept free from draughts in a warm, well-ventilated room.

Poultices and hot fomentations should not be resorted to unless the pain is very severe. The danger of taking cold afterwards is great. A mild aperient, such as a tea-spoonful of liquorice-powder mixed in two table-spoonfuls of water, should be given, and milk, beef-tea, arrowroot and such-like food should form the principal part of the diet. Moving the jaw causes pain, so that solid food cannot well be taken. Mumps are very infectious.

Chicken-Pox.—Chicken-pox is not a very serious, though it is a very infectious disease, and is chiefly confined to children. As a rule the child is scarcely ill, but sometimes there is much feverishness. Often the first thing that attracts attention is the appearance of a few small red spots on the body. These gradually increase in number, and may be on the face as well as on any other parts of the body.

These spots form into little watery heads, which last three or four days and then dry up. They then become irritable, and the child often scratches itself until a troublesome sore is made.

To prevent this the chief thing to be done is to use means to allay the irritation, and to prevent the child from picking itself. A little vaseline, or cold cream, or zinc ointment laid lightly on them, with a bit of soft rag is very soothing. Boracic acid sprinkled over the irritable parts is also an excellent remedy.

Sty on the Eye.—A sty is a little boil on the edge of the eyelid. It is very sore and very painful, and is generally a sign of weak health. Hot fomentations during the day and a bread poultice at night will quickly effect a cure, but this treatment necessitates keeping indoors. Some persons take out a few eyelashes with very good results, but it is rather a painful process.

Nettle-Rash.—This is an eruption on the skin, and is so named because it resembles the blisters caused by the sting of a nettle. Some constitutions are predisposed to it, and with others it comes on after eating certain articles of food. Many people get an attack of nettle-rash after eating shrimps or mussels; others after eating pork.

An aperient medicine is then necessary, and frequent bathing in tepid water. Vinegar and water applied to the rash with a bit of linen rag allays the irritation. A lump of common

soda about the size of a walnut, dissolved in half a pint of hot water and cooled, also makes a good lotion for the irritation.

Wasp Stings.—Whenever a person is stung by a wasp, or bitten by any poisonous insect, a few drops of liquid ammonia should be immediately applied. The old-fashioned plan of colouring the affected part with the blue-bag is also efficacious.

A Gathered Finger.—Put on a bread-and-water poultice with which a small quantity of sweet-oil or unsalted lard has been mixed. Renew this until all objectionable matter is drawn out, and then heal the wound with zinc ointment. When there is no embedded substance, such as a splinter or thorn, causing the mischief, dip the finger several times a day into water as hot as can be borne. This often stops the progress of a gathering.

Burns and Scalds.—The best remedy for a burn or scald is that which most effectually keeps it from contact with the outer air. The reason for this is, that when the skin is burnt or scalded away, the nerves become exposed, and it is this exposure of nerves that causes the pain.

In cases of accident, where only a small

part of the body is burnt, such as the hand or face or foot, vaseline is an excellent and convenient remedy. It should be spread thickly on linen rag and laid on the burn, which should then be well wrapped up in cotton-wool or soft rags, to keep out the air.

It is also a good plan to saturate a piece of cotton-wool or rag with carron-oil, olive-oil, salad-oil, or any oil that is within reach, excepting mineral, *i.e.*, lamp oil. Lay it on the burn, and then cover it with cotton-wool to protect from the air. Carron-oil is a mixture of equal parts of linseed-oil and lime-water, and is so called from its frequent use at the Carron ironworks.

A paste made of carbonate of soda and water, laid on to the burn and covered with cotton-wool, relieves the pain, and might be useful when oil is not at hand.

In the case of a person's clothes being on fire, the first thing to be done is to put out the flames. Presence of mind is always valuable; but most of all in cases of fire. A girl's first impulse, on finding her clothes on fire, is to rush out of the room. This is a great mistake, as fire cannot burn without air.

It would be much wiser for her to throw herself on the floor, and roll over and over

screaming for help. A blanket, or other woollen article, should be thrown over her, and wrapped tightly round until the fire is extinguished. The hearth-rug or any piece of carpet that comes to hand may be used, or any coats or waterproofs that happen to be hanging near.

When the fire is extinguished, keep the patient warm with blankets and hot-water bottles until the doctor arrives. Give also a cup of tea, or if the shock is great, a little weak brandy and water or beef-tea. If the doctor does not at once arrive, cut off as much clothing as possible, and lay rags soaked in carron-oil on the burnt parts, covering them over quickly with plenty of cotton-wool.

Bruises.—Put a table-spoonful of vinegar into a pint of cold water, and bathe the bruised parts with the mixture, using a soft linen rag or a soft sponge. Or rub the bruise gently with a little arnica, which is far quicker in its action than vinegar. Arnica, however, should not be used if the skin be broken.

Cuts.—Slight cuts should be washed in cold water to ensure their being clean. Then narrow strips of court-plaster may be placed across the cut so as to hold the edges together,

and these strips may be kept in place by a calico bandage if need be. If the use of court-plaster be objected to, a small piece of linen rag covered with vaseline, laid on the cut and bound with a strip of rag or tape, is a useful remedy.

When cuts fester and become troublesome, it is often because dust and dirt have been allowed to get in before they are properly healed. A finger-stall from an old glove makes an excellent shield for a cut finger.

Cuts on the ball of the thumb are apt to bleed profusely. In this case, the first consideration must be to stop the bleeding. The hand should be held up, and the wound pressed firmly with the thumb of the other hand, a smooth flat stone from the garden or road may then be covered with several layers of linen rag, and pressed on and bound firmly to the cut. A handkerchief might with advantage be bound round the arm for a time, to somewhat arrest the flow of blood from the heart.

Another way to stop bleeding from a cut is to burn some rag to a cinder, mix it into a paste with vaseline, lay it on to the cut, and bind it up tightly. After a time it should be removed, and if the bleeding has

stopped the wound should be bound up with vaseline rags. If, however, the cut is likely to re-open, court-plaster may be put on in strips to keep it together. Stamp paper should never be used, because the gum on it may be poisonous.

A prick or a scratch from a pin often causes a painful little wound. It is wise always to suck the wound at once, and keep it free from dust and dirt for a time.

Linseed-Meal Poultice.—To make this, have ready six table-spoonfuls of linseed-meal and one of mustard, a piece of firm thick calico or thick brown paper a little larger than the size of the poultice required, a little sweet-oil or unsalted lard, a heated basin, and a warm dish or plate, according to the size of the poultice.

On this dish spread out the calico. Mix the meal and mustard well together in the basin, and make them into a stiff paste with boiling water. Spread this paste thickly with a knife on the calico, leaving an uncovered edge about an inch wide all round. Roll this edge over on to the linseed, and sprinkle the oil on the poultice.

A cool linseed-meal poultice is almost useless, therefore it is of the greatest import-

ance that everything should be prepared beforehand. Whatever is done after the poultice is made should be done quickly; and as soon as it is put on, cover it well with cotton-wool or layers of flannel. At times a piece of thin muslin is placed over the linseed before it is applied; but if the poultice is properly made this is unnecessary.

Bread Poultice.—Take off the crust from a slice of bread, place the bread in a heated basin, and set the basin on the grate. After this pour into the basin sufficient water to thoroughly soak the bread. As soon as this is done squeeze the water from it with a warm spoon, and spread on a piece of old calico. Sprinkle on a few drops of sweet-oil, or smear over a little unsalted lard. Take pains to keep the poultice as hot as possible until it reaches the patient.

Mustard Plaster.—Take a table-spoonful of mustard and mix it into a rather thin paste with cold water. Spread it thinly and evenly with a knife, on a piece of brown paper, the shape and size required, and lay over the mustard a piece of thin, soft muslin.

A Cold Compress.—A cold compress is often used instead of a linseed-meal poultice, and has somewhat the same effect. Take a piece

of old calico or linen, fold it smoothly and evenly until it is three or four times thick, and the size you require. Soak it in cold or tepid water, and lay it on the affected part. Then completely cover it with oil-silk, and bind all well up with flannel or calico bandages. A cold compress should remain on for several hours, and may then be renewed if necessary.

MANAGEMENT OF A SICK-ROOM

The Bed-room.—When a doctor considers that a person is too ill to be about, and orders him to lie in bed, the first question that arises is,—Where shall we put the patient? and the reply to this is,—Into the best room at your disposal. By the best room is meant the one that is most airy and bright, and at the same time so far removed from noise, both of the household and the street, as to be the most quiet room in the house.

In cases of infectious disease, a room at the top of the house, and as far away as possible from all rooms in use should be chosen.

Every sick-room should have in it a fire-

place, and at least one window, which will open at the top as well as at the bottom.

The Fireplace.—In winter time a fireplace is of course necessary for the proper warming of the room; and it is useful all the year

round for purposes of ventilation. The fire heats the air around the fireplace, and hot air being light, rises, and thus a draught sets in up the chimney, which carries away the impure air. The register of the grate, if there be one, should never be closed, summer

or winter, neither should the chimney be blocked up.

Ventilation.—Great care is necessary in ventilating a sick-room, as draughts are most dangerous, and it must depend on the doctor's advice as to whether the window is to be opened or not. When a window is open at the top it lets out from the room the heated and impure air which always rises, and, at the same time, if open at the bottom, allows a current of fresh air to come into the room from outside.

An excellent way of ventilating a room is to open the window a little way at the bottom, and fill in the space with a thin strip of wood (as is seen on page 80). This makes a space in the middle of the window where the two sashes meet, and through this space the air can pass, whilst the wood prevents a draught at the bottom.

Sunshine.—A sick-room should if possible be a sunny room. They have a saying in China that "where the sun does not come the doctor often does." The sun is a great enemy to germs of disease, and at the same time a most cheerful companion, except in the hottest parts of the year. In cases of diseases which affect the eyes, such as measles or smallpox,

and in cases of brain fever, a darkened room is necessary, but in nearly every other illness light and sunshine are things to be welcomed.

A Thermometer ought to be hung in every sick-room, as otherwise it is difficult to know whether the temperature is as it should be or not.

The Bed should be placed as much as possible out of the way of draughts, and so that the patient does not face the window. If it can be managed, it is a good plan to arrange the bed so that the window is on one side of it. It is important also that it should be so arranged that both sides of the bed are free, and not so that one side is pushed close against the wall.

Furniture. — It is a mistake to have unnecessary furniture in any bed-room; but in a sick-room much furniture is very objectionable. Heavy chests, wardrobes and boxes are much better out than in sleeping-rooms. Almost the first thing that should be done in arranging a sick-room, is to move out of it all articles that are not required for the comfort and convenience of the patient and nurse.

Ornaments.—In spite of the warnings of medical men, some people insist on crowding into their bed-rooms things which are far

better out. A bed-room is a place for sleep, and not a place for show. Knick-knacks and fine furniture are there sadly out of place, not only on account of the time they waste and the dust and disease they harbour, but on account of the air they displace. The larger the bed-room the more the air, and the more the air the better.

Carpets.—Pieces of carpet are more suitable than a piece which covers the whole room, as they can more easily be taken up and shaken.

Window Curtains should not be put up merely for show. They should have rings sewn on them and should be hung on a rod, so that they may be drawn when necessary to shade the room or to keep draughts from the patient.

Cleaning.—In cleaning the room, do it with as little fuss as possible, and never stir up a cloud of dust. If the room is carpeted, do not brush it with a carpet-broom, but rub it all over with a damp cloth, holding a dust-pan in your left hand as you do it, to catch any bits that may be lying about. In dusting the room, move about as quietly as possible, but be careful that all dust is removed.

In managing a sick-room it is very important that all vessels should be emptied as soon as they have been used.

Cups, glasses, plates and similar articles which are required, either by the invalid or the nurse, should be carried out of the room as soon as they have been used. It is a good plan to have a table standing just outside the sick-room on which things can be laid, ready to be carried downstairs at the first opportunity. No food of any description should be left in a sick-room. Grapes, cakes and other little dainties should be kept on a table outside the room, and where the air is fresh and pure.

Empty medicine-bottles should on no account be allowed to remain in the room. As soon as they are emptied they should be carried away. Those which contain medicine should be kept in the room in a place where they can be easily seen by the nurse, but not by the patient. They should all be carefully labelled, and those containing liniments or ointments for outward application only, should be kept apart from the others. A medicine-shelf or cupboard is a very useful piece of furniture for a sick-room.

The Patient.—The greatest pains should be taken to keep a sick-room clean and orderly, to have the air in it fresh and pure, and the general appearance of it as bright as

possible. But, above all things, watch should be kept over the patient, as some invalids are very uncomplaining, and suffer more than they need do.

A watchful nurse will soon discover this, and do what she can to relieve them. As doctors spend so short a time with ordinary invalids, the nurse's report is very valuable to them. An observant eye is an excellent qualification in a nurse.

Hospitals.—But however careful our friends may be over a sick-room at home, and however kind and attentive the nurse may be, it is more than probable that the best place for a person who is very ill, is a well-managed and well-staffed hospital. There, everything which is needed is at hand. There, the rooms are large and airy, and there, is to be found the best of advice.

Among the many things which require to be done for an invalid with regularity every day, one of the most important is the washing of the patient. Unless forbidden by the doctor's orders, a nurse should wash her patient every morning. It is a tiring process, and must be done with great care and gentleness, and the more thorough it is the more refreshing and beneficial will it be.

Before commencing to wash a patient in bed, a large towel should be spread over the counterpane, and the sponge or flannel should not be so wet as to make the patient wet and

uncomfortable. The washing should be followed by a gentle rubbing with a soft towel; and unless the patient be very weak and ill, the teeth and hair should be attended to. In the ordinary affairs of life it is the little matters which make or mar our comfort.

And it is the same in a sick-room. Little details help to make the patient more comfortable and pleased, and help more than may be noticed, in restoring the sick one to health.

As soon as the process of washing is over, some nourishment should be given to the patient, but only such as the doctor has allowed. The nurse should move about quietly while the patient is sleeping, or better still, should remain perfectly quiet. If she is obliged to take this opportunity of tidying the room, she must make as little noise as possible.

All kinds of noise, and especially the clattering of fire-irons, are very objectionable in a sick-room. They may very well be dispensed with for the time. A pair of old gloves might be kept in a convenient place, and the coal thus put on the fire with the hands, and all noise avoided.

Medicines should be given punctually, and with great regularity, and a doctor's instructions should be strictly carried out.

Food.—When a patient is recovering from an illness, the feeding is an important part of the nursing. Meals should be punctual and regular. Beef-tea, broth, arrowroot, &c., should be made by the nurse when

possible, and if not by her, certainly under her supervision. Every nurse ought to know what kind of food she is supplying to her patient. Solid food, when allowed, should be served up to the patient in as dainty a manner as possible.

A clean tray-cloth and well-polished knives and forks and spoons, a clear drinking-glass and a neat salt-cellar go a long way towards making a meal look nice; and clean tidy things cost no more than dirty and untidy ones. The appetite of many a patient has been taken away, and many an invalid has been set against his food by having it presented to him in a slovenly, untidy way.

The Nurse should never have her own meals in the sick-room. To do so is bad for both patient and nurse, but especially bad for the latter. Many young nurses, in their anxiety to well nurse their invalid, think that the way to do so is to spend most of their time at the patient's bedside. This is a serious mistake, and must be guarded against; or there may be two patients instead of one.

Nursing the sick is wearying work, and in home nursing, the nurse can best show her love for, and kindness to her patient by taking care of her own health. If a patient

sees her nurse looking tired and weary, it has a depressing effect on her, and she shrinks from asking for what she needs. But if a nurse is in good health, and cheerful and bright, the patient is more likely to be cheerful too.

All nurses should if possible arrange to go out for a walk every day, and should devote a due amount of time to rest and sleep. A nurse should wear a print washing dress in the sick-room, and should change it before ing for her daily walk. In infectious cases

a nurse should not mix with other members of the household, unless she has changed the clothes she has been wearing in the sick-room.

The Bed.—The management of the bed, and changing of bed and body linen, is a matter of great importance in the sick-room, and requires both knowledge and care.

The best kind of bedstead is an iron one, with a wire or chain bottom, and the best bed, a hair or wool mattress. Feather beds should only be used for very old people. Heavy counterpanes are very objectionable. Blankets are much better, being lighter; and being porous, they allow the perspiration to escape. In making up a sick-bed, remove the counterpane, put on an extra blanket, and cover with a thin sheet, to keep the blankets clean.

A draw-sheet should be used on all sick-beds; it prevents the frequent changing of the under-sheet. To put a draw-sheet on a bed, fold an ordinary sheet lengthwise down the middle, and lay it across the middle of the bed, over the bottom sheet, with the fold towards the top of the bed. Use only just enough of the sheet to reach across the bed, and roll up the rest, tucking the roll under

the mattress, so that it may be kept clean for future use.

Bolsters are not well suited for sick-beds. When extra pillows can be had, bolsters should be dispensed with. The arrangement of the pillows must depend very much on the nature of the illness, and the tastes and habits of the patient. Some persons like to lie with their heads level with their bodies, and for young people it is as a rule a habit to be recommended, but to many persons a high pillow is a necessity.

A nurse should study not only her patients' needs, but their tastes and fancies as well, in arranging their pillows. Never heap the pillows one on top of the other. Put one a little lower than the rest for the patient's shoulders to rest on, and then arrange the others so as to make a sloping bank, each one being a little more backward than the last.

A bed-rest is often a great comfort to a sick person. When a specially-made one cannot be had, a light chair is sometimes used instead. It should be put on the bed behind the pillows turned upside down, so that the patient's back rests against the back of the chair.

All soiled linen should be taken out of the room as soon as it is done with, and never

put under the bed or into a corner. In infectious cases it should be put at once into a bath of water containing some disinfectant, which ought to be prepared for it before it is moved from the bed or body of the patient.

Most of the ordinary so-called disinfectants are useless. They offend the nose, but they do not destroy germs of disease. A solution of chloride of zinc is good, but dilute carbonic acid is better.

Visitors.—When a person is recovering from an illness, and is still weak, one or two visitors may be admitted into the sick-room, if they are admitted one at a time. They often do good in rousing the spirits of an invalid by a little cheerful conversation; and many patients are pleased to feel that they have sympathising friends.

Visitors, however, should not be allowed to sit in the sick-room and carry on a conversation with each other. They should direct their conversation to the patient, and talk only of those matters which are interesting to him or to her. A quiet yet cheery visitor, who is content to speak gently and not to fatigue the invalid, does much good in a sick-room; and in addition helps to relieve the nurse.

The members of the household should not be allowed to go into the sick-room whenever they please. They should consult the nurse and the feelings of the patient. Little troubles and worries, which will occur in every house, should be carefully kept out of the sick-room; and no grievances should be carried to, or discussed in, the presence of the one who is ill.

Cookery.—In addition to the receipts given under "Simple Dishes," the following may be useful in times of illness.

Beef-Tea.—To make this take half a pound of gravy beef, remove from it all the fat, and cut it up into small pieces. Put it into a stone jar, with a pinch of salt and sufficient cold water to well cover the beef. Tie a piece of plain paper over the top of the jar, and put it into a saucepan, with sufficient water to reach rather more than half-way up the jar. Boil for two or three hours, then take the meat out of the jar and set the beef-tea to cool. Remove all fat from the top, and re-warm as much as is required, leaving the rest in a cool place for future use.

Gruel.—Take a couple of dessert-spoonfuls of smooth oatmeal and mix it into a thin paste with cold water. Have ready a sauce-

pan containing rather more than half a pint of boiling water. Pour the oatmeal paste into the saucepan, stirring briskly all the time to prevent it forming lumps. Let it boil for at least five minutes, strain it if necessary, and add a little white sugar.

Milk-Gruel.—Put two table-spoonfuls of fine oatmeal into a jar, with a pint of cold milk. Set the jar up to its neck in a saucepan of boiling water, and let it boil for three hours. Stir occasionally, and add a little white sugar when done. If it is at all lumpy, beat it through a sieve, and re-warm it in a clean saucepan.

Baked Custard.—Beat two eggs, with a table-spoonful of white sugar, in a pie-dish. Add gradually a pint of milk, and bake for half an hour in a cool oven.

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